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Original Articles

THE EXTENT AND LIMITATIONS OF THE POWER TO REGENERATE IN MAN AND OTHER VERTEBRATES.*

T. H. MORGAN, PH.D.

NEW YORK CITY.

About the middle of the eighteenth century great interest was aroused in the power shown by certain animals to replace lost parts. The remarkable work of Trembley, Bonnet and Spallanzani made known some of the principal results with which we are familiar to-day. Many new facts have also been discovered since their time, but despite the fundamental importance of the phenomena of regeneration, little is known at present in regard to the physiology of the process. Nevertheless, a beginning in the study of the physiology of regeneration has been made, and I invite your attention especially to some of the more general aspects of this side of the problem.

In this connection I should like to discuss also the question why certain animals seem to lack the power to replace lost parts; and since man himself belongs to this class, the meaning of the fact is of direct and, perhaps, even of practical importance to us; for if we could determine why man does not replace a lost arm or a leg, we might possibly go further and discover how such a process could be induced by artificial means.

It has seemed to me that regeneration is only one phase of the general phenomenon of growth. If this is the case why does an animal that has ceased to grow begin to regenerate with great rapidity when a part is removed? If we turn the question around the other way and ask, why does an animal stop growing when a certain size is reached, we may attack the problem at closer quarters.

WHY DOES AN ANIMAL STOP GROWING?

In the first place, an animal stops growing not because its cells have lost their power of further growth. This much seems certain; for, if a part is removed all the cells at the cut surface begin to grow again. Moreover, this new growth does not take place as some writers have assumed from reserve cells, but from the formed tissues of the old parts. We must conclude, therefore, that in many, perhaps in all, animals, the cells, with possibly few exceptions, still possess the power of further growth. In fact the cells seem to have limitless powers in this direction, and something in the body must restrain their activity after a certain size has been reached. What is the nature of this restraint? What retards the development as the size approaches that of normal for the animal?

It has sometimes been assumed that growth is retarded or stopped because the animal can digest only so much food, and that the adult size is the stage of equilibrium between the amount of food digested and the amount of food used up. Now if this assumption is true, we might attempt to test it in the following way: If we remove a part of an animal—a tail or a leg for example—the remainder of the body ought to grow larger, because the food that went to nourish the part removed can now be utilized by the rest of the body. Suppose, for example, that we cut off the tail of a salamander, we would expect, if this view is correct, that the animal would increase in weight by just as much as the weight of the tail removed. As the new tail grows out the whole weight should remain constant; for, what is added to the new tail, day by day, must be lost by the rest of the body. In other words, after the operation the weight should increase rapidly to what it had been before, and then hold its own as the new tail develops.

I have recently carried out an experiment of this kind. The results are given in the accompanying table. Two sets of salamanders were weighed; in one set the tails were amputated and the animals were again weighed. The other set was kept intact as a control. Both sets were kept under the same conditions, and fed exactly the same amount of food. This is possible in the species that I have used, because the animals can be fed by hand and the amount of food thus regulated. As the table shows, the amount of food given at first did not cause an increase in weight in the check set, but the tailless animals increased in weight and in a week had made good the weight loss in the tails. They also continued to gain weight more rapidly than the check set.

TABLE SHOWING GAIN IN WEIGHT IN DIMYCTYLUS WITH TAILS CUT OFF AT BASE AND TAILS NOT CUT OFF.

Without tails.			Check.
1.23	Dec.	12	1.85
1.28	Dec.	13	
1.49	Dec.	18	1.70
1.53	Dec.	27	1.66
1.83	Jan.	5	1.98
1.90	Jan.	13	2.06
1.91	Jan.	20	2.13
2.07	Jan.	27	2.37
2.02	Feb.	3	2.19
2.13	Feb.	10	2.23

It should be noted that the animals were in an underfed condition when the experiment began, and the difference in the rate of increase in the two cases may not represent what an animal might do that had already reached its maximum size. I have repeated the experiment on the same salamanders in a well-fed condition and have not always found the same difference noted in the preceding case. Since these animals have no definite upper limit of growth, they proved to be not well suited to test the question, although the greater initial increase in the tailless set may, in part, be due to the absence of the tail. The most interesting outcome of the experiment was that the increase in size is not due to the storage of fat, but to growth in all of the organs of the body. It might be supposed that the regeneration of a new part is due to the temporary increase of available

* A lecture delivered before the Harvey Society, New York City.

food, owing to the loss of the old part, but that this is not the explanation is shown by the following experiment: If we amputate the tails in two sets of animals, and starve one set and feed the other, we find that the rate of growth of the new tail is nearly the same in the two sets. After two months the starved animals are greatly emaciated, but the length of their new tails is *almost* as great as that of the well-nourished individuals.

In other words, the new part grows at nearly the normal rate while the rest of the animal is starving to death. Clearly, then, the power of regeneration is not determined by the amount of food digested. It is due rather to the greater assimilative power of the cells of the new part.

In this connection another curious fact should be mentioned. It has recently been shown by Zeleny, for the crayfish and for brittle-stars, that the greater the number of legs or of arms removed the faster each one grows. If one leg is removed it regenerates at a given rate; if two are removed each regenerates faster than when only one is absent, etc. This result recalls Pflüger's celebrated teleologic law; that in living beings the cause of every need is at the same time the cause of the fulfillment of the need. For example, lack of food causes starvation, and the starvation is the cause of the appetite that leads the animal to search for food.

I do not care to advocate this view, but simply to call attention to the neatness with which it covers the case of regeneration just given. The scientific explanation must be sought in some other direction. Zeleny has discussed the question whether his results may not be due to the amount of food. A certain amount of material is required to nourish a leg. If we remove the leg a surplus is present. If we remove two legs so much more surplus is present, which can go to nourish both new legs, and for a time both may grow faster than when only one leg is removed. If this were the real explanation of the increased rate of growth when more legs are removed it would follow that a starved animal would replace the two legs more slowly than a well-fed animal would replace one leg. I tested this possibility. One, two or three legs were removed from my salamanders. One set was starved, the other fed, and the individuals in the two sets compared. Little or no difference between the two sets could be detected; hence, I conclude that the result is not primarily one of food supply.

DIFFERENCE IN THE RATE OF REGENERATION.

Perhaps the most important facts bearing on the problem under discussion are those connected with the rate of regeneration at different levels. If the tail of a fish is cut off near the base the new part grows faster than when the tail is cut off near its outer end. The new tail may be replaced as soon when much is cut off as when less is cut off. The result is independent of food, for it takes place in the same way whether the fish is starved or fed. This relation between the rate of growth and the amount removed is found to occur in widely different groups of animals. King has shown in the starfish that when an arm is cut off near the base the new arm regenerates faster than when the arm is cut off near its tip. In the earthworm the results are the same, for the posterior end at least. If a few segments are cut off from the posterior end they regenerate with extreme slowness. If the worm is cut in two in the middle a very large number of segments regenerate; if the worm is cut in two further forward, behind the girdle, a still larger number of segments is regenerated in the same time.

What is the cause of this difference in the rate of regeneration at different levels? I am not certain that I can answer this question, but I should like to call attention to a remarkable agreement between this result and the normal process of growth. Growth is much greater in youth than in adolescence, and becomes less and less as the adult size is approached. We find this same relation in the newly-regenerated part. It grows less rapidly the nearer the cut surface is to the complete form. It seems, therefore, not improbable that whatever regulates the rate of growth of the animal as a whole also regulates the growth of the regenerating part.

Some writers believe that regulative processes in general are due to a vitalistic principle resident in living matters. In fact, the whole regenerative process has sometimes been referred to a mysterious formative or completing force, but so long as we do not know anything about such a force we gain nothing and lose a great deal, I think, by ending our search in such an empty phrase.

There is at least one physical possibility which in some form or other may explain the regulation of the growth process. Our problem, you will observe, seems to have narrowed itself down to determining an inhibitory factor, since we have assumed that the cells of the body possess unlimited possibilities of growth if given a suitable environment. It seems to me not improbable that the inhibition is caused by a definite response to a condition of mutual pressure or tension of the cells on each other. When this condition is reached further growth comes to an end. When we alter this particular pressure by removing a part, growth begins again.

What the nature of this pressure may be I can not say, nor how the cells respond to it, but taking all the facts into account, this assumption may at least give us an escape from the assumption of a formative force. Indeed, the formative force itself is nothing more, if my view is correct, than the response of the cells to the pressure relations of neighboring cells. The response of the cells to pressure determines their differentiation and the differentiation determines the limitations of the growth process. Thus the adult size of an animal is determined by the differentiation of its cells, and the differentiation is regulated by the mutual pressures of the cells on each other.

I am aware that this view is purely hypothetical and that it may appear somewhat vague, but when we get to the boundary of what is known we must have recourse to provisional hypotheses if investigation is to continue. It is in this spirit that these conclusions in regard to the influence that regulates the growth of new parts are offered.

REGENERATION IN VERTEBRATES.

Let us turn now to the less speculative and purely descriptive side of the problem.

Fish.—Beginning with the lowest group we find that fish have excellent powers of regeneration. The tail regenerates if removed at any level, and in some species even when the end of the vertebral column is also cut off. The lateral fins that correspond to the limbs of higher vertebrates will also regenerate if cut off, as well as the dorsal and ventral fins. In this connection I may recall an elaborate experiment recently carried out on the Pacific Coast. It has been said that salmon return after their sojourn in the sea to the same rivers in which they were born. In order to test this view, V-shaped pieces were cut out of the tail of thousands of individuals of young fish and parts of the dorsal or ventral fin were also cut off. The fish marked in this way was turned

loose in their native streams and their return from the sea awaited. It is needless to point out that the experiment was futile, for whether they returned or not they would regenerate their fins. In order to be sure that these salmon do not behave differently from other fish in regard to their powers of regeneration, I have operated here in the New York aquarium on two of the species of salmon used and have found that they have the power to regenerate the tail, the dorsal and the ventral fins. As yet I have not determined with certainty whether the adipose fin has the same power or not.

Salamanders and Newts.—Salamanders and newts have long been known to have remarkable powers of regeneration. Spallanzani cut off all four legs and the tail six successive times and each time new parts regenerated. He calculated for a single individual that, in all, 647 new bones must have been formed in the course of a single summer. The last time the legs regenerated as quickly as the first.

The eyes also of the salamander regenerate as long as a piece of the optic bulb remains attached to the nerve. In recent years the experiments of Colucci and of Gustav Wolff have attracted much attention. Colucci and Wolff have found that the lens of the regenerating eye does not come from the skin as it does in the embryo, but from the upper edge of the iris. We thus see that an organ may regenerate from a part of the body from which it is never derived in the embryonic development.

One of the most novel of the recent experiments with salamanders is that of Tornier. He has shown how we can produce in the salamander, at will, a supernumerary leg. By cutting through the skin and the muscles at the side of the leg, and at the same time wounding the bone beneath, a new leg develops on the side of the old one. Unless the periosteum of the bone is injured nothing occurs. This shows that the material derived from the periosteum is the most important element in the formation of the new limb, and other results support this conclusion. In still another way a double limb may be produced. If the leg is first cut off and, after the regeneration has begun, a ligature is tied over the new tissue so that it becomes constricted into two parts lengthwise each will produce a new foot. Tornier suggests that the double limbs sometimes found in human embryos may be caused by folds of some of the membranes constricting the limb bud at an early stage of its growth.

Histologic Changes.—At this point I must say a few words about the histologic changes that take place in the regeneration of a new part. The process has been more carefully studied in the tail of the salamander than in any other animal. When the tail is cut off the skin grows over the cut surface in the course of a few days. Those parts of the muscles that lie near the cut end begin to break up. The muscular tissue, as such, disappears, and the protoplasm forms a ball around each nucleus. These are the so-called sarcoblasts, and out of some of them the new muscle-tissue is formed. A little later, or at the same time, the periosteum of the bone begins to thicken, and soon sends forward a cord of cells from the cut end of the bone into the new part. The segregation of the material of this periosteal cord now takes place and the centers of the new bones are laid down. The muscle fibers begin to develop out of the sarcoblasts; the nerve extends into the new structure, and the blood vessels also send out branches into the part. These changes continuing, the elements of the new limb are formed. All these changes must take place synchronously in order that a perfect limb develop. Should any one of the component parts lag too far behind the others a normal product will not be formed. I shall return to this question again.

Tadpoles.—The most striking case of the artificial production of supernumerary parts is that which Tornier has recently described for the tadpole of the frog. By a suitable operation a frog with four or even with six hind legs can be made. The method of operating was as follows: Young tadpoles were selected in which the beginnings of the hind legs were present as small knobs, one on each side of the base of the tail. With a pair of scissors the tail was partially severed at the base so that each leg rudiment was cut into two parts. As subsequent results showed, the blastema of the pelvis was also cut in two by the same operation. In consequence either two pelves developed and four legs, or in some cases three pelves (or their equivalents) and six legs. The results depend on the great powers of regeneration shown by the blastema of the pelvis and legs.

Barfurth has shown that the hind legs of older tadpoles have the power to regenerate, but after the tadpole has changed into the frog this power is rather suddenly lost. It has been generally assumed that none of the legs of the adult frog has the power to regenerate, but I have found that this is not always the case. In two instances I have seen a frog regenerate a new, imperfect fore-leg, but only after several months, and Mr. Goldfarb, who has been working with me, has obtained the same result. This occasional regeneration, imperfect though it be, shows that the power to replace lost parts is still to some extent present in the adult frog, so that it is one of the best subjects for future experiments in attempting to induce regeneration by artificial means. I have already carried out many experiments with this end in view, so far without much success, but enough has been seen to indicate that the quest is far from being hopeless.

Lizards.—Passing now to the higher groups we find that lizards can regenerate the tail, but not the legs, The new tail is imperfect, however, inasmuch as the vertebral column is replaced by only a cartilaginous tube containing a thin filament extending from the end of the old nerve cord. Double-tailed lizards are not infrequently found and can now be produced artificially by making a wound in the side of the old tail.

Birds.—In birds regeneration of new parts is still further limited, the beak alone of external organs having this power to regenerate if broken off.

Mammals.—Finally in the mammals neither the limbs, tail or other external organs have the power to regenerate if lost.

Thus as we ascend the vertebrate scale we find the power of regeneration diminishing.

What is the cause for this loss? Some zoologists seem inclined to believe it to be due to increasing complication of structure, but I do not think this can be the cause. The eye of the salamander is a very complicated organ, and yet it regenerates from a piece only of the bulb. Other zoologists, of whom Weismann is the most noted example, believe that the power to regenerate is something that has been acquired by natural selection in those animals most subject to injury, or in those parts of the body most often destroyed. This view I hold to be utterly erroneous. To give but a single case in point: The eye of the salamander is an organ that is seldom or never injured unless the animal itself is destroyed, yet as we have seen, it has astonishing powers of regeneration. If, then, neither complication of structure nor natural selection will explain why some vertebrates regenerate and others do not, is there any other explanation that can be offered? If, as I think probable,

the power of regeneration is closely related to the power of growth, inherent in the protoplasm, why should this power be lacking in certain forms?

WHY CAN NOT MAN REGENERATE AN ARM OR A LEG?

For several years I have been making experiments and examining this question in various ways. I do not feel that I can give you a satisfactory answer, but the evidence indicates, I think, with some probability, that the failure is due to the fact that the different tissues have very different rates of regeneration. In other words, each tissue in man seems to possess the power to regenerate its kind, but not all at the same pace, hence they fail to co-operate at the proper time to form a new structure. In man the skin regenerates; the muscles regenerate, though less well perhaps; the nerves and the blood vessels regenerate, and the bones even have a not inconsiderable power to mend and even to some extent to regenerate. Hence, as I have said, the failure of the new limb to develop does not appear to be due to the failure of the individual elements to regenerate, but is due to their failure to regenerate concurrently. The bones seem to be the main cause of the trouble, for they produce new material with great slowness.

In this connection it is instructive to observe that in the vertebrate series the failure to regenerate is found in cases in which cartilage begins to change into bone. Within the group of amphibians we find this change taking place. The newts and salamanders, with partly-cartilaginous bones, regenerate readily, and so do the larval frogs, while in the adult frogs, where the bones have become harder, regeneration has almost disappeared. In the lizard the power to regenerate its leg has been lost, but it can regenerate its tail; and the tail vertebræ are less hardened than the bones of the leg.

I do not wish to affirm that this is the only cause of the failure to regenerate in higher vertebrates, including man, but, as I have already said, there is some indication that the main trouble lies in the slowness of the bones to regenerate in time with the other tissues. But if the tissues in man still possess the power to regenerate may we not hope in time so to adjust their rate of regeneration that the replacement of a lost limb may be induced? I can not but think that some day this may be accomplished.

PERFORATION OF DUODENAL ULCER.

OPERATION AND RECOVERY.*

J. H. MUSSER, M.D.

AND

EDWARD MARTIN, M.D.

PHILADELPHIA.

MEDICAL REPORT BY DR. MUSSER.

Patient.—E. C., aged 39, white, American, manager of railroad, was admitted to the University Hospital Sept. 25, 1905, and was in profound shock and suffering much pain when seen by my resident physician, Dr. Keene, to whom I am glad to express my indebtedness for the notes, and the care and skill in attendance on the patient.

Previous Medical History.—For the past nine or ten years the patient has been a constant sufferer from "gastric hyperacidity." During this time he was under constant medication and restricted diet. Five years ago he was operated on for appendicitis.

History of Present Illness.—For five days before admission to hospital he suffered severely from gastric hyperacidity and vomited several times during the day, the vomitus consisting chiefly of highly acid mucus. He obtained relief from alkalies, such as sodium bicarbonate. The day he was admitted to the hospital he was feeling better, and at 12 o'clock, for luncheon, he ate a squab and a plate of soup, and drank a quart of apollinaris water, which is more than he had taken since the onset of this recent attack. He felt perfectly well until 5 o'clock on the evening of admission, when, on attempting to enter an automobile, he was suddenly seized with agonizing epigastric pain, so severe as to cause him to scream and to double him over. He was taken at once to a drug store, where sodium bicarbonate was given, but without relief. He then came to the hospital, about forty-five minutes after the onset of the attack. During the day he had had a good bowel movement resulting from hunyadi water taken in the morning.

Condition on Admission.—At 6 p. m. temperature was 97; pulse, 72; respiration, 24. He was pale, markedly dyspneic and suffering intense abdominal pain, chiefly in the epigastrium; the pain was also referred to the back, between the shoulder blades, and to the right shoulder. The pain was so severe that it was impossible for him to lie quietly, causing him to toss from side to side in bed, with the knees drawn up. On account of increase in pain it was difficult for him to breathe, and impossible for him to take a long breath.

Examination.—On examination the abdomen was found to be markedly scaphoid in shape; extreme general and cord-like rigidity were present. Not a click of peristalsis could be heard. Tenderness was more or less general over the whole abdomen, but the point of most acute tenderness was about the size of a dollar, situated in the right midclavicular line, just below the costal margin, where even the slightest touch would cause agonizing pain. If any difference could possibly be differentiated, rigidity was more marked in this locality.

Preliminary Treatment.—After the examination was made morphin 1/4 gr. and atropin 1/150 gr. were given, and in about five minutes the patient was seized with vomiting, which was gushing in character, very profuse (about three pints), and consisted of undigested food and clear mucus, with no microscopic blood. The pain was relieved somewhat by vomiting, and the man was able to breathe more deeply. In about forty-five minutes the anodyne had relieved the severe pain and he was much more comfortable. He had no more attacks of nausea or vomiting until 10:30 p. m., when he again became nauseated, but could not vomit, and the epigastric pain began to reassert itself. During the entire time the rigidity remained the same, and peristalsis could not be elicited. Simple enemata were given, but were ineffectual; under the opiate general abdominal tenderness seemed largely to subside, and the point of acute tenderness shifted a little to the left.

Examination of Gastric Contents.—On examination of the gastric contents no blood was present to the naked eye or revealed by the occult blood test. The gastric contents were highly acid, but not of a foul odor.

Blood Count.—At 8 p. m., r. b. c., 11,200; at 9. p. m., r. b. c., 16,000; at 10 p. m., r. b. c., 14,680.

Temperature, Pulse and Respiration.—At 6 p. m. temperature was 97.1; pulse, 72; respiration, 24. At 8 p. m. temperature was 98.2; pulse, 90; respiration, 22. At 10 p. m. temperature was 99; pulse, 108; respiration, 24.

Diagnosis and Operation.—The diagnosis of duodenal ulcer was made, and an operation was performed at 11 o'clock by Dr. Martin. An ulcer was found on the posterior wall of the duodenum, just beyond the pyloric orifice of the stomach. The perforation was about the size of a pinhead. There was extensive peritonitis.

The operation of inclusion with fastening of the omentum over the ulcer was done. The inflammation of the peritoneum was too violent and progressive to admit of prolonged operation. (See the remarks of Dr. Martin.) A rapid recovery followed, and to this day (February 1), the patient is without symptoms.

These facts present all the features of the case up to the time of operation. In review, it may be said that I saw the patient about 6:45 p. m. on the day of admis-

* Read before the College of Physicians, Philadelphia.

sion. There was evidently commencing peritonitis due to perforation of some hollow viscera, presumably the duodenum. Time for further brief observation to note the progress of the pulse, the temperature and the leucocytosis was admissible. Hourly reports were given me, and at 10 p. m. I requested Dr. Martin to see him with me and, if he concurred, to arrange for operation.

The diagnosis of duodenal ulcer was made because the pain during his many years of suffering did not take place immediately after food, indeed was often relieved by food; because hematemesis was absent; because there was no vomiting after food, and because of the location of the greatest pain, tenderness and rigidity.

The diagnosis of perforation was based on the history of the case and the mode of onset of the acute symptoms, pain and shock, the situation of the greatest tenderness and rigidity, the pain in the back and the occurrence of acute peritonitis. The pain in the back indicated a posterior perforation. The dyspnea was apparently due to an overloaded stomach and to pain and rigidity.

The diagnosis of peritonitis was made because of the presence of a very probable cause, i. e., perforation of some hollow viscera, because of the local and then diffused pain, the rigidity, the progressive rise in the temperature and pulse and the leucocytosis.

The interesting feature of the case is the fact that if there ever was a person whose gastric symptoms might have been deemed a neurosis this patient was of such type. He was of neurotic temperament; his business invited such a state; he smoked to excess, was accustomed to the use of stimulants and led a social life not conducive to an equanimity of function proper for digestion. At no time were there any objective signs to suggest ulcer. The character of the stools had not been studied before the onset of acute symptoms, and hence no statement can be made as to the occurrence of intestinal hemorrhage. It is true the hyperacidity from which he suffered was in all probability the causal factor in the production of the ulcer, and this, in turn, might have been the product of a neurosis. Against a neurosis his habit of indiscretion and heedlessness as to the mode of eating, time of eating and character of food count for much, so unlike the timid, finicky and apprehensive neurotic subject.

Because of the absence of the symptoms of lesion it behooves one not to put too much stress on the other leg and to allow temperament to be too serious a factor in diagnosis. The same may be said of the duration of the disease. Long duration does not rule out organic lesion.

I have had the privilege of reporting to the college two other cases of perforation of duodenal ulcer with operation and recovery. The first patient was operated on by Dr. Wharton Dec. 18, 1900. This patient is in excellent health, free from gastric symptoms and of greater weight than ever. The operation of inclusion was done. Much the same may be said of the second patient, a woman operated on by Dr. W. W. Keen Nov. 26, 1903. She has no gastric symptoms and is much heavier than before the operation. Dr. Keen sewed up the ulcer and performed a gastroenterostomy with a Murphy button. Somewhere within the abdominal cavity that button still lingers. There is every indication that it is in close proximity to Nature's button and that it makes itself known, notwithstanding the incompatibility of age, by those sensations which are not incomparable to those of the expectant mother.

SURGICAL REMARKS BY DR. MARTIN.

The accurate diagnosis made the surgical procedure in the case comparatively simple.

Of all the symptoms the one which most clearly indicated the need of immediate operation was the increasingly rapid pulse, which in four hours had run from 72 to 108. The leucocytosis was not progressive. The perforation was found without difficulty and was bathed in stomach contents, which had gravitated mainly downward and to the right into a pocket formed by adhesion of the cecum and ascending colon to the parietal peritoneum in front. Into this pocket a drainage tube was passed through the loin and from it drained about an ounce of turbid mucus. Thereafter there was no further discharge from this tube.

At the seat of ulceration there was a ring-like induration about the entire duodenum, forming a distinct stricture. Inversion of the opening was readily accomplished by Lembert sutures, the line of which was further reinforced by a strip of omentum. There were no signs of adhesive inflammation even on the part of the omentum, nor were there evidences of extravasation downward and forward into the pelvis.

A drainage tube was carried to the region of the foramen of Monro, and the wound was closed by large sutures.

Barring an attack of left-sided pleurisy, which strongly suggested an inflammation at the lesser omental cavity, convalescence was uneventful.

FRACTURE OF THE ALVEOLAR PROCESS OF THE RIGHT SUPERIOR MAXILLARY BONE.

WITH REPORT OF A CASE.

WILLIS E. HARTSHORN, M.D.
NEW HAVEN, CONN.

Fractures of the superior maxillary bone may involve the body, the nasal process, the malar process, the palate process or the alveolar process. They are comparatively rare, and for this reason a report of a case of fracture of the alveolar process which recently came to my attention may not be out of place, especially as the employment of the interdental splint and its advantages over other methods of treatment is well illustrated.

ETIOLOGY.

This class of fractures is almost always due to direct violence, a bad fall, a severe blow on the face, a gunshot wound or some other source of direct traumatism. The superior maxillary bone is well protected by the forehead, malar bone and lower jaw, making it less liable to injury than other more prominent portions of the body. The most exposed process of the bone is that including the alveolar margin. This is, therefore, the point where partial fractures most frequently occur. Next to this come fractures of the nasal process in connection with injuries to the nasal bones, fractures caused by dentists in the extraction of teeth and those occurring in operations for the relief of diseases affecting the maxillary sinus. von Bergman says:

The most frequent form of complete fracture is the transverse one. This usually runs backward into the pterygoid process. It results from a severe blow on the face from before backward, beneath the nostrils in the median line or somewhat lateral to this. The entire vault of the mouth with the teeth may be detached and displaced posteriorly. In very marked dislocations the posterior margin of the palate may

even rest on the posterior pharyngeal wall and obstruct the pharynx. Fissuring and splitting of the palate bones from before backward are not uncommon accessory injuries.

The body of the bone rarely fractures. In case the fall is from a height, a vertical line of fracture may occur or even a separation between the two bones. Following a blow from below upward on the upper jaw or from the side, a different type of lesion results, the line of fracture being guided largely in the direction from which the blow comes.

The entire alveolar margin may be detached if the direction of the force is lateral or oblique from above downward and a portion of the body of the bone may be broken off at the same time.

Observations by various authors on the effect of a blow directed from below upward seem to be very limited.

Regarding a severe bilateral injury, von Bergman says:

The entire median portion of the bony face may be broken off along a fracture line which runs from the nasal apertures toward the orbit, then circumscribes the malar bones and finally fractures the pterygoid processes at their base.

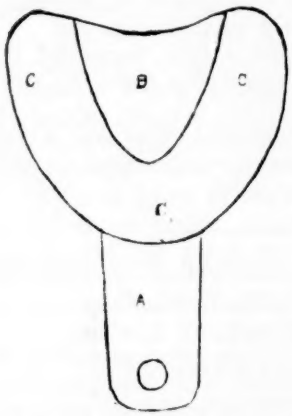

Fig. 1.—Dental impression plate. A, handle which was removed; B, v-shaped portion which was removed; CCC, grooved alveolar margin.

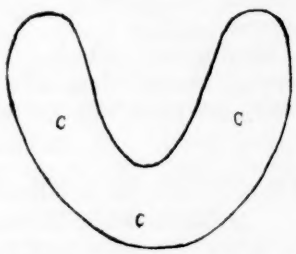

Fig. 2.—Dental impression plate as illustrated in Figure I, without handle and with v-shaped section removed from the palate portion. Used as a temporary splint after filling the grooved alveolar margin, CCC, with dental modelling composition.

DIAGNOSIS.

This is usually easy, especially in fractures involving the alveolar process. A displacement of the teeth is almost always present. There is mobility of a portion of the alveolar arch, a bloody space between the teeth at the point of fracture, ecchymosis, swelling, crepitation and hemorrhage from the lacerated tissues if the fracture is compound. Pain and tenderness when the patient attempts to use the teeth is a prominent symptom. Emphysema of the soft parts may be present if there are comminuted fragments involving the nasal process with laceration of the mucous membrane. Pressure on the inner plate of the pterygoid process causes pain, and in extensive fractures is reported to be diagnostic.

PROGNOSIS.

The prognosis is generally favorable, even when the fracture is comminuted. Very severe injuries cause remarkably little deformity. Necrosis is very rare, as the alveolar process is thin and covered on both sides by periosteum. When this is removed on one side the other affords the necessary nutrition. Extensive fractures generally unite in from eight to ten weeks, though most dentists who do surgical work advise leaving the interdental splints in place for a considerably longer period. The time, however, depends largely on the severity of the lesion. Fragments of bone and loosened teeth should not be removed, as they soon become fixed in place.

TREATMENT.

The following case will best illustrate the treatment recommended:

Patient.—Male, aged 22, a barber by trade. On Sept. 12, 1905, while riding his wheel he was run into by another wheelman and thrown violently to the ground, striking on his face and receiving a fracture of the alveolar process of the right superior maxillary bone. He was unconscious for a short time after the accident. Owing to a severe attack of tonsillitis the patient did not seek surgical treatment until ten days after the injury, at which time the case first came under my observation.

Examination.—Examination showed contusions of the face and a fracture of the alveolar arch of the right superior maxillary bone, extending laterally from the median line to and including the first bicuspid on the right side. Posteriorly it extended for a distance of three-fourths of an inch. The fragment of bone was entirely separated from the body of the

Fig. 3.—The permanent splint in place.

superior maxilla and freely movable, rendering that portion of the jaw useless. The alveolar margin of the fragment was displaced downward for about one-quarter of an inch in the median line.

Treatment.—The treatment at first was unsatisfactory, but deserves mention as being easy and convenient. A dental impression plate of aluminum (Fig. 1), which could be easily molded to the form of the upper jaw and which can be obtained from any dental supply house, was carefully adjusted to the alveolar border, extending from the last molar tooth on the right side to the last molar on the left. This was accomplished by removing the handle of the plate and cutting a V-shaped section from the palate portion, leaving simply the grooved alveolar margin to act as a splint (Fig. 2).

Chloroform was then administered to the patient and the fracture reduced by constant, strong pressure brought to bear against the displaced alveolar border in the direction of the long axis of the teeth, crushing the partly formed callous until the line of the teeth was exactly even. The splint was then filled with dental modeling composition No. 2 and applied forcibly against the teeth, forming a firm interdental splint. This was removed once, the deformity corrected by filling in with modeling composition the cavity made by the displaced right central incisor, allowed to harden and then reapplied.

The splint, with a moderate amount of adjusting, held firmly in place for two weeks, but did not reduce the deformity satisfactorily, caused the patient a good deal of discomfort and also gave rise to a very considerable gingivitis. At the end of this time is was removed, another of aluminum applied and secured to the teeth by dental cement instead of the modeling composition before used. The method employed was as follows: By means of an impression plate and modeling composition a mold of the entire upper alveolar arch was taken. This mold was then removed from the mouth and a plaster cast made from it in the manner usually employed by dentists in making a plate. This showed exactly the amount of displacement of the fragment. This displacement, as represented in the cast, was reduced by cutting the cast vertically at the point of fracture and cementing the two portions together in the normal relation.

A zinc die was then cast from this and a thin sheet of aluminum, 26 gauge, B and S in thickness, was modeled exactly to fit the die and hammered firmly in place with the aid of a counter die of lead. The patient was again placed under chloroform, the fracture completely reduced by pressure, the aluminum splint forced firmly on the teeth and held in place by dental cement. Figure 3 is from a photograph of the patient with the permanent splint applied. The splint has been worn since without the slightest discomfort and the deformity so nearly reduced as to be hardly noticeable.

German silver or gold may be substituted, if desired, in place of aluminum, but German silver becomes corroded very quickly and gold is too expensive.

With the interdental splint the patient can eat solid food without difficulty and enjoys no more discomfort from its presence than is usually noticed in ordinary bridge or crown work.

The aid of a dentist is required in making and fitting the splint, which must be left in place from two to three months and should fit closely, but not extend so far toward the roots of the teeth as to irritate the gums. This splint can be used with equal advantage in fractures of either the upper or lower jaw.

PROPRIETARY MEDICINES.

SOME GENERAL CONSIDERATIONS*

GEORGE H. SIMMONS, M.D.

CHICAGO.

PROPRIETARY MEDICINES.

A proprietary medicine is a preparation that is owned or controlled by an individual or individuals. This control is held either by a copyright or trade name, or by a patent. Proprietary preparations controlled by copyright or trade names are generally mixtures, and are often secret or semi-secret in character. It is the name of the article that protects it.

There is no objection to proprietary medicines *per se*, if we are to recognize the commercial rights of those who supply us with medicines. The commercializing of the literature relating to our materia medica, however, —which seems to be necessarily associated with proprietary interests—is against a true scientific spirit and is demoralizing, both to pharmacy and to medicine.

The ideal proprietaries are those that are made so by the manufacturers attaching their own and not a fanciful name to the preparation. For instance, Squibb's ergot is a proprietary preparation, in so far that if a physician prescribe for this preparation he will get Squibb's ergot as surely as he would if it were sold under some fanciful name. So with other articles, whether mixtures or simples, if the maker's name is attached. These are the ideal proprietaries and ought to be encouraged, for this means the encouragement of a high standard of quality.

PATENTED MEDICINES.

Patented medicines are those which are made patent or open; in consideration of the owner making known his methods of manufacture he is protected against infringement of his rights for a certain number of years.

Nearly all patented medicines are chemical compounds "made in Germany;" but, incidentally, it might be said they are not much used in Germany; at least not as much so as in this country. Theoretically, there is no objection to patented medicines; at least, they are not secret, nor is there anything mysterious about them. Practically, they have become almost as much of a nuisance as the nostrums because of their vast and ever-increasing number, and especially because the manufacturers are so extremely anxious to get physicians to prescribe them that they often stretch the truth to the breaking point in the literature describing their value as therapeutic agents.

"PATENT MEDICINES" AND PROPRIETARY MEDICINES.

Proprietary medicines, theoretically at least, may be divided into two classes: those that are sold directly to the public, and those that are put up for and advertised only to the medical profession. The former are called "patent medicines." This is an arbitrary, absurd, and meaningless term, but one that will doubtless continue to be used. The latter, those advertised to physicians, are usually called "proprietaries." But when the Proprietary Association of America, an organization made up principally of "patent medicine" men, discusses the preparations put up by its members, it always calls them "proprietary," and there is no reason why it should not. The fact is, there is no technical difference between "patent medicines" and "proprietary medicines." But it is generally understood that the term "patent medicine" refers to those that are advertised and sold direct to the public; and "proprietary medicines" to those used by physicians. For the time being we are concerned with the latter only.

NOSTRUMS AND ETHICAL PROPRIETARIES.

Every one acknowledges that there are some proprietaries which are fraudulent, or which, for some reason or other, should not be used by physicians. Even those who most bitterly oppose the work undertaken by the Council on Pharmacy and Chemistry acknowledge that there are some proprietaries on the market that are not what they ought to be; in other words, are not "ethical." But what are they, and why are they not "ethical"? Are all of the thousands of proprietaries offered to physicians good and worthy of their patronage? If not, why not?

The fact that we use such terms as "nostrum" and "ethical proprietary" indicates that there are good and bad proprietaries. Would it not relieve the situation if we could agree on some definition of these terms Had we a general understanding of what we mean when we say a certain medicine is a nostrum, or an ethical proprietary, we would be able to discuss matters relating to this proprietary medicine question with a better understanding than is possible under present circumstances. In fact the whole problem rests on what we mean by these two terms. We know that a nostrum is a medicine that should not be used by a physician, and that an ethical proprietary is supposed to be all right. But why?

Nostrum (*noster*) literally means ownership, and thus should be synonymous with proprietary; and when we

* Read in part in a symposium on the Proprietary Medicine and Nostrum Evil before the Chicago Medical Society.

get away from this original meaning we begin to flounder among arbitrary definitions. Webster defines nostrum as "a medicine, the ingredients of which are kept secret for the purpose of restricting the profits of sale to the inventor or proprietor, a quack medicine;" Dunglison as "a secret or quack medicine." The term is certainly one of reproach and is meant as a slur on the medicine to which it is applied. And it is easy to understand how this meaning of reproach came when we realize that, even in the early days, any medicine that was controlled for profit by keeping its composition secret was regarded with disapprobation. Of course, secrecy was then necessary to ownership, as it is to-day with simple mixtures. And no matter how much we may labor to give a different meaning now, our forefathers considered any medicine a nostrum whose ownership was controlled by keeping its method of manufacture secret. This definition would be considered too narrow to-day; we must be satisfied if the ingredients and their quantity are given; the details of manufacture may be kept secret. But what proportion of proprietary medicines on the market to-day would escape coming under even this liberal definition of the word nostrum?

And what of ethical proprietaries? Are all medicines whose composition is given, including the amount of each ingredient, "ethical" proprietaries? Then Ayer's Sarsaparilla, and other "patent medicines" which publish their formulas, would be "ethical." And what about those proprietaries that are advertised to cure incurable diseases, and which are exploited under false and extravagant claims with the deliberate intention of misleading physicians? Are these to be classed with "ethical" proprietaries? Is there no standard by which we may judge what are and what are not "ethical proprietary medicines?"

It seems to me there must be some such standard, and I wish to submit the following propositions as a basis for a definition for such preparations.

1. There should be no secrecy or mystery connected with their composition.
2. There should be no secrecy or mystery regarding the firm which makes them or the place where they are made.
3. There should be nothing in the advertising literature concerning their therapeutic value which is untrue or misleading.
4. They should not be advertised, directly or indirectly, to the public.

I believe that no one who has any regard for the rights of physicians, for scientific medicine, or for legitimate pharmacy, will deny the correctness of the principles of the above propositions.

NO SECRECY OR MYSTERY.

1. Whatever is secret or mysterious is suspicious. This is a truism that needs no demonstration. Secrecy and mystery are the bulwarks of quacks and humbugs, and behind secrecy and mystery the "patent medicine" sharpers hide while they swindle the public; and with them the exploiters of nostrums delude and humbug unthinking physicians. Remove the secrecy and mystery connected with these preparations, and physicians who now prescribe some of them would be ashamed to acknowledge that they had ever been so foolish.

A physician not only has the right to know what he is giving his patient, but he has no moral right to prescribe a preparation of which he does not know the exact composition. Incidentally, we are facing a rather peculiar condition; the public is demanding and we are urging that the label on all "patent medicines" shall state the actual composition; and yet some of us are prescribing and so compelling our patients to buy and take preparations about whose composition we ourselves are ignorant. We are rightly demanding that the people shall be told exactly what they are taking when they prescribe for themselves. What will a layman say when he discovers that his physician is giving him a medicine whose composition his physician does not know?[1]

Another fact should be mentioned, incidentally also, in this connection: The legislation for the protection of the public against frauds in "patent medicines" and foods, provides for the examination of these articles by experts, so that the statements of the manufacturers may be verified. Should there not also be experts to examine medicines offered to physicians and to verify the statements regarding the composition of medicines they use? Evidently not, judging from the vehement protests from certain quarters when the American Medical Association secured for this purpose the services of experts and created the Council on Pharmacy and Chemistry. It should be noted that in all proposed or enacted legislation—national or state—the medicines used by physicians are exempt from its provisions; it is presumed that physicians know enough to take care that the medicines they use are what they ought to be. A sadly mistaken presumption this, judging from the past!

It is claimed that if the owner of a proprietary medicine should divulge the exact ingredients and the amounts of each, his rights would be gone, since others would make it. In reply, let me assure you that there is hardly a nostrum put on the market whose composition can not be detected by the bright fellows connected with other manufacturing pharmaceutical houses, who, if they desire, can put up practically the same product, and this is actually done pretty generally. But it is true that if the formulas of at least 90 per cent. of the secret, or semi-secret, proprietaries on the market were made public, and if all secrecy and mystery regarding their actual composition were removed, there would be no more call for them by physicians, for there would be revealed to physicians what is known to experts who have looked into the matter, viz.: that these wonderful preparations are very ordinary prescriptions which any educated pharmacist can compound. I am referring now to the thousands of articles that are foisted on our profession by what I shall refer to later as pseudo-chemical and pseudo-pharmacal companies; I do not include the so-called "elegant" non-secret pharmaceutical preparations, such as elixirs, syrups, tablets, capsules (especially when containing liquids), bougies, etc., that require more skill, or greater facilities, in their manufacture than is usually found in the ordinary retail drug store, and

1. The members of the Proprietary Association of America are fully alive to this weakness of the medical profession, as is shown in the editorials appearing in various newspapers throughout the country, which are obviously dictated by the press committee of the "patent medicine" men. The following quotation from the Newburgh *Daily News*, March 26, may serve as an example: The article speaks of secret preparations which are sold to physicians only under high-sounding and coined names and which are prescribed by them in utter ignorance of their ingredients: "The name is intentionally puzzling and the drug may be composed of morphia, cocain, digitalis, strychnin, or any other deadly drug for all the doctor knows: Arsenauro, Neurosine, Phenalgin, Svapnia, Firwein, Celerina, Dioviburnia, Ammonol, Peptenzyme, Borolyptol, Aletris Cordial, Apioline, Peacock's Bromids, Alkalithia, Urceden, Freligh's Tonic. These and many hundreds of others, including a number of coal-tar derivatives under different names, with their deadly heart depressing effects, which have been directly responsible for hundreds of sudden deaths, are blindly prescribed by the physician."

that are made by pharmaceutical houses which employ skilled and scientific chemists and pharmacists and which have every facility for such work.

A common argument offered by the promoters of secret proprietaries is that they have spent time and money in developing them and, hence, can not afford to give up their secrets. As regards this, I assert that the only expense attached to the development of ninety-nine out of every hundred of these preparations is that which has gone into bottles, labels, advertising literature, and in wages paid to smooth-tongued detail men to visit and delude the doctors. In this they have undoubtedly spent money—lots of it, and successfully. But aside from this, all the talk about the time and money invested in developing these preparations is the veriest bosh. The capital required to start Antikamnia, a combination alleged to have been suggested by a physician, and which has netted a fortune to its owners, was simply that which was necessary for advertising. The ingredients were cheap and no skill was required to mix them. Ammonol, we are told, was the result of the suggestion of a physician that carbonate of ammonia should be used in the place of caffein to counteract the action of acetanilid on the heart; and Phenalgin, it is alleged, is simply the result of another "company" branching off from the Ammonol Company with practically the same mixture under another name. The amount of time and money required to work out the acetanilid mixture, Sal Codeia-Bell, I leave to your imagination. How much knowledge, time and money do you suppose were necessary to originate Tongaline, Neurilla, Pasavena, Anasarcin, Manola, Sanmetto, Ecthol, Neurosine, Benzol Capsules, and thousands—I am not exaggerating when I say thousands—of analogous preparations? Are these anything more than ordinary simple mixtures of well-known drugs? Do they require more than ordinary pharmaceutical skill to compound them? Are they any better combinations of drugs than the average physician is prescribing every day?

RELIABILITY OF MANUFACTURERS.

2. Next to knowing what is in the combination we are using is the knowing who makes it, whether the manufacturer is competent, reliable and has the necessary equipment. Ordinarily, when we buy an article of commerce, regarding the quality of which we have no confidence in our own judgment, we select a responsible, established firm, one which has a reputation, and we take the firm as a guarantee that the article will be up to the standard and one on which we may rely. Should we not do the same when we select medicines to prescribe for our patients? And yet one of the most noticeable facts connected with the nostrum business is that the vast majority of these preparations are supplied us by firms about which we know little or nothing, and which, for a better name, I designate "pseudo-chemical" or "pseudo-pharmacal" companies—companies which are created solely to exploit this class of medicines. These companies are not in the true sense manufacturing chemists or manufacturing pharmacists, if by these terms we mean that they are in the regular business of manufacturing the various chemical and pharmaceutical preparations. The latter have their catalogues or price-lists, which include preparations official and non-secret, called for in the regular course of such business. They have more or less complete laboratories and expert chemists and pharmacists. While some of them put out preparations of a secret and more or less doubtful character, this is a side issue with them. Some "pseudo" companies are really connected with regular manufacturing and pharmaceutical houses, through which these houses exploit doubtful preparations, that, for reasons best known to them, they are ashamed to exploit openly. But the nostrum output of all the regular manufacturing pharmaceutical and chemical houses is trifling compared with the vast number that are foisted on our profession by companies that are in no sense regular manufacturing pharmacists.

If we should get behind the scenes we should find that the personnel of most of these "pseudo" companies consists of men who have no interest in, or knowledge of, either medicine or pharmacy. Many are merely promoters who have created a fictitious "company" through which to exploit to our profession some cheap nostrum. Once in awhile the "company" will be found to consist of a doctor or a druggist, who sees in this "specialty business" easy money. Ex-advertising agents in several instances form the personnel of such "companies." One "company" that I have in mind consists of a real-estate agent and a lawyer; originally it was a real-estate agent and a druggist, but the lawyer and the real-estate agent put up a job on the druggist and he was squeezed out. The preparation this "chemical company" exploits is made by a regular manufacturing firm, and the "company" does not have to attend to even the labeling or boxing of its preparation. And yet this is a "chemical" company!

Some of our "ethical proprietaries" are furnished us by the same men who, under other names, are supplying the public with "patent medicines." Certain homeopathic pharmacies are running "pseudo" companies as a side line, and exploiting nostrums to the regular profession. And, as I have stated, a few old established pharmaceutical houses and retail druggists, under anonymous names, are doing likewise.

But while there is mystery connected with the personnel of many of these pseudo-companies, there is just as much mystery connected with the place of manufacture. Some of the "companies" have their preparations made for them by regular manufacturing houses just as many "patent medicines" are made. In other instances the "laboratory" is a back room in a business block not far removed from the business office; an ordinary store room on a side street often answers the purpose.

Let me suggest, therefore, that before prescribing a preparation we not only should know what it is, but also who makes it and where it is made. If the name of the manufacturer is not known let us find out something about him. If the "company" or individual is not a legitimate manufacturing concern, but is merely putting up one or two "specialties,"—often a dignified name for nostrums—we should be suspicious. We should be very suspicious if a detail man calls on us representing a "company" which bears the same name as the product he is cajoling us to prescribe for our patients.

I am not making a plea for manufacturing pharmacists, at least so far as claiming that they are what they should be. On the contrary, I am sorry to say that too many of them are putting out "specialties" that are the veriest nostrums. Examination of some of the products of a few of the supposedly reliable houses has shown that our profession has been sadly deceived and humbugged by even such houses. But the number of regular manufacturing firms who have been practicing this deception is probably small, and the total number of nostrums or fraudulent preparations from all these houses

is insignificant compared with those that emanate from the "pseudo" concerns.

The nostrum, or secret "specialty," is a side issue with legitimate manufacturing houses, and when they find that our profession is awake, they will stop this dishonorable business. While some of them will dislike to do this—for these "specialties" are very profitable—they will do so rather than have their legitimate business injured by exposure of their illegitimate. But what about those whose business consists entirely in making and exploiting nostrums? Will they give up willingly? Will they stop for fear of exposure? By no means. It is their livelihood. It is too lucrative a proposition to give up without a desperate fight. And as there are some three or four hundred of such concerns in this country, is there any wonder that this movement has met with tremendous opposition, an opposition which, combined, represents millions of dollars!

I want to emphasize this phase of the problem, and to declare as emphatically as I can, that the great bulk of the nostrums are put out by "companies" that are neither chemical or pharmacal, and that these "pseudo" concerns bear the same relation to legitimate pharmacy that the ignorant quack doctor bears to an educated honorable physician. And one is as great a curse to pharmacy and chemistry as the other is to medicine.

Just a word in regard to imported mixtures. There seems to be an impression among many of us that if an article is imported, it must be something good, reliable, "ethical" and above suspicion. As a matter of fact, during recent years England, France and Germany—especially the latter two—have been sending mixtures to this country—mixtures that have been made especially for the American market, at least their sale is practically limited to this country—which are on a par with the nostrums of this country. Some of these foreign preparations are foreign in name only. Others are imported in a concentrated form and diluted here, and still others are imported as put up abroad. There are so many disreputable preparations among them, and they are advertised and exploited so often with such utter disregard for truth, that it is well to be suspicious of all. Further, while we are willing to recognize the superiority of the German chemists in certain lines, American pharmacy for a third of a century, has been leading the world—and is leading to-day. It is certainly not necessary to go abroad for our pharmaceutical mixtures; but if we do, let us be sure that they are at least as good as, if not better than, those made by our own people.

EXAGGERATED STATEMENTS.

3. Of course, every one—including the manufacturer—will agree with the third proposition: that no untruthful claims should be made regarding the therapeutic value of medicinal articles. And yet, what a reflection on the veracity of the manufacturer, and especially on the credulity and tolerance of the physician, is the great bulk of the advertising "literature" furnished by the manufacturers of proprietary medicines. I won't take time to illustrate, by quotations, the correctness of this statement. If any of you would criticise it, look at the "literature" that has come to your office during the past week, or at the advertising pages and "write-ups" in some of our medical journals. It is to our disgrace that we have so long put up with the foolish and extravagant claims and falsehoods of proprietary medicine men.

INDIRECT ADVERTISING TO THE PUBLIC.

4. The fourth proposition is the one to which a certain class of proprietary men most object; but to the physician it is the most important. The Council on Pharmacy and Chemistry incorporated this principle in Rule 4, which is:

RULE 4.—No article will be admitted whose label, package or circular accompanying the package contains the names of diseases, in the treatment of which the article is indicated. The therapeutic indications, properties and doses may be stated. (This rule does not apply to literature distributed solely to physicians, to advertising in medical journals, or to vaccines and antitoxins.)

It is a manufacturer's business to sell his wares; it matters little to him who buys them. This is business. The manufacturer of drugs is no exception to this general proposition. Consequently, we can not blame him if he tries to get the public to buy the wares he puts up—ostensibly "for physicians' use only." But physicians object to the advertising of medicines direct to the public—not for selfish reasons, but because their indiscriminate use by the public is more likely to be injurious than beneficial.

It is not necessary to give the reasons why the indiscriminate use and self-prescribing of medicines containing active or poisonous ingredients is detrimental to public health. Knowing the harmfulness of it, physicians emphatically object to the advertising of such medicines to the public.

Hence, few proprietary medicine manufacturers, who want physicians to use their preparations, do thus advertise. But practically all of them have been advertising indirectly to the public, until now without a protest on our part. This indirect advertising is by circulars accompanying the preparation and by labels on the bottles or containers, as well as by having the name of the preparation blown in the bottle.

Samuel Hopkins Adams charges that physicians are indirectly responsible for a large part of the "patent medicine" taking, and undoubtedly his charge is just. While the catchy name of the nostrum prescribed by the physician is partly to blame, it is the advertising matter which the layman gets with the medicines that does the work. The labels and circulars tell him of the various diseases in which the medicine is indicated. This is the kind of advertising that costs nothing; and, evidently, it is considered "ethical" advertising. But, above all, this is the advertising that pays. The patient has confidence in his doctor; his doctor, the patient reasons, has confidence in this particular medicine, and, therefore, it must be good; and if it is good for the particular trouble for which the doctor prescribed, it must be good for the other diseases indicated—and their name is usually legion—on the label and in the circular. If those of you who are in the habit of prescribing proprietaries will examine a package at your drug store—just as the patient will get it, too often, in spite of your directions to the druggist to remove the label—you will not wonder that so many of the proprietaries that have been on the market for any length of time are bought directly by the public, in much greater quantities than on physicians' prescriptions.

The manufacturer argues that the doctor himself wants to know what a preparation is good for. I reply, the doctor is not supposed to go to a drug store to learn his therapeutics. The manufacturer will see that the physician gets enough literature to keep him informed of the value of his preparation in every disease in which it is possible to use it. It is not usual for labels on official drugs and standard pharmaceuticals to contain the names of diseases in which the article should be

used; neither should such indications be permitted on proprietaries. But so long as we tolerate this abuse, just so long will the manufacturers keep it up; and we can not blame them; it is business. It is a method of exploitation that costs them nothing; they get the doctor not only to prescribe their preparations, but to put their literature in the hands of the public at the same time. And this literature has another and decidedly important effect: it aids and abets the druggists in counter prescribing. Has the time not arrived for us to demand of the manufacturer that he give us a square deal in this matter? Should we not insist that this indirect method of exploitation to the public shall cease?

Let us not blame the manufacturers for this nostrum business. We, and not they, are to blame. We have been allowing ourselves to be deluded without a protest. We have accepted commercialized literature in the form of therapeutic hints without question, and have been prescribing cheap drugs under a fanciful name, for which either we or our patients pay ten times their worth, without so much as a murmur.

The nostrum evil has grown until it is a curse to our profession. The use of proprietaries has become so common that the intelligent prescribing of well-known official drugs in their simpler form by many intelligent practitioners has become a lost art. The literature of the proprietaries has developed in many physicians an optimism and a contented spirit that has checked intelligent thought, independent action, and an ambition to progress. The nostrum business has cast a blight on our literature, debauched our medical journals, checked advance in scientific methods of treatment, and suborned the art of prescribing to the aggrandizement of commercial promoters.

Can we not rid our profession of at least a part of this blight?

THE SUBORDINATION OF MEDICAL JOURNALS TO PROPRIETARY INTERESTS.*

J. H. SALISBURY, A.M., M.D.

Assistant Professor of Chemistry, Rush Medical College; Professor of Medicine, Chicago Clinical School.

CHICAGO.

It would be difficult to overestimate the important influence of medical journalism on the opinion and action of the medical profession. The medical school is attended, as a rule, but once in a lifetime; the meetings of the medical society are usually infrequent, but the medical journal, like the newspaper, is an ever-present friend whose influence and advice are potent for good or evil. Whoever gains control of the medical press goes a long way toward securing a paramount influence on the entire medical profession. The control of the medical press by the proprietary medicine interests is, therefore, a matter of vital interest to every physician, and it is worth while to inquire how great and of what character this influence is.

PROPRIETARY ADVERTISEMENTS.

An extensive influence of this sort may be assumed from the fact that most medical journals are supported by advertising, and, while the necessity of this may be deplored, it is nevertheless an important fact to be reckoned with both in considering the reason for the subserviency of the medical press and in suggesting a remedy for the nostrum evil. It can be asserted as an axiom that no paper supported by advertising can pursue a policy antagonistic to the interests of its advertisers and retain their patronage which is necessary to its existence, and no paper dependent in part on advertising can escape the influence of its advertisers. A liquor advertisement would appear with bad grace in a prohibition paper, and it may be assumed that a journal which accepts the advertisements of proprietary preparations will observe a certain discretion in its advocacy of pharmaceutic reform, confining its denunciations to glittering generalities, firing blank cartridges, or at least directing its aim so as to be sure not to injure its friends.

That the majority of American medical journals can not in the nature of things be unfavorable to proprietary medicines is evident from an inspection of their advertising columns. Practically all medical journals carry advertisements of proprietary remedies. In one journal which is supposed to exhibit the highest ideal in the ethical conduct of medical journalism, 20 out of the 36 advertising pages were devoted to advertisements of proprietary articles; in another of high grade 9 out of 26 pages were used in the same way.

SUBSERVIENCY OF MEDICAL JOURNALS.

The extent of the subserviency of medical journals to the proprietary interests is further shown by the fact that a large proportion of medical journals have a department devoted to advertisements under the guise of reading notices, commercial news, therapeutic notes, etc. No pretense is made that these are genuine scientific articles, and it is tacitly understood that these columns are under control of the advertisers and that the articles are disguised advertisements. We note that financial advantage or necessity has compelled the paper, presumably devoted to the propagation of truth, to descend to the utterance of a commercial fiction, if we may not call it by a harsher name, and to become a silent partner to what frequently amounts to a scientific and commercial fraud.

A number of journals do worse and put such material under the heading of "Abstracts" and print so-called select original articles culled from other journals. This department is the reading notice concealed under a name which leads the reader to expect valuable summaries of medical progress and seems to put the stamp of approval of the editor on its contents.

In the next step, taken by a considerable number of journals, the editor and his contributors exhibit themselves as the willing slave of their proprietary master, having been bought and paid for. The write-up and the apologetic editorial exhibit the lowest stage of journalistic depravity. An estimate of the extent of this evil can be gained from the statement of a recent writer that the journals subsidized by the proprietary interests comprise one-half of those published in the United States.

I went through 27 medical journals, covering the past six years, and found one preparation, viz., "peptomangan," as the subject of forty-five original articles. In addition there were six editorial indorsements of the remedy. One editor went so far as to take up arms in defense of his patron against the aspersions of a rival firm which were likely to injure the business. In a somewhat cursory survey covering about 15 medical journals for the last 5 years, I have found about 300 so-called original articles written in praise of the various proprietary remedies, and the list is by no means complete. I think that the evidence is sufficient to show

* Read in a symposium on Proprietary Medicines and Nostrums before the Chicago Medical Society.

that the medical press of the country is profoundly under the influence of the proprietary interests.

It may be objected that it is only the second-class journals which publish such articles. This is not entirely true, for such articles have been repeatedly found in the columns of some of the best periodicals in the country, although it must be said that there is a marked difference between different journals in their apparent relation to the nostrum traffic. Some openly uphold it; others silently consent; while a few, but an increasing number, positively condemn it. It must be remembered that the so-called second-class journals have, individually, a considerable and, collectively, an enormous circulation.

DEGRADATION OF MEDICAL JOURNALISM.

We have next to inquire what is the character of the influence exerted on medical journalism by these nostrum vendors?

The scientific and practical value of the literature is markedly lessened. The clinical reports presented in behalf of some preparations, peptomangan for instance, make the claim and have the appearance of giving the results of careful clinical and experimental work. The sincerity of the authors of some of these articles we are not disposed to deny, but the scientific value of their work is much impaired by its one-sided character and the lack of comparison and critical judgment. After an imposing array of blood counts, clinical histories, etc., the only fact established is that a certain set of patients recovered under the use of a preparation of iron. No comparison is made between the results obtained by the use of other forms of iron and those due to the administration of the remedy under consideration, and when such a comparison has been made, as was done by the Commission for the Study of Uncinariasis in Porto Rico, the results, not particularly favorable to peptomangan, are distorted to form the basis of the claim that the United States government authorities have endorsed a proprietary preparation.

The result of inserting such one-sided articles is to encumber the reading pages of the journal with worthless stuff and to create an uncritical habit of mind in the reader. Nothing but careless reading can be expected of the doctor who peruses such an article as "The Skin a Factor in Diagnosis" to find it an advertisement of a nostrum, or who hopes to learn something of value in regard to prophylaxis from "How to Assist Young Girls to Womanhood," but finds that the sum of the author's valuable advice is to give them peptomangan! Finding his time wasted in the careful reading of such articles, it is very natural for him to give little attention to the really valuable matter which may be interspersed between proprietary articles. What shall we say of the scientific character of a journal made up of such articles as that of W. C. Derby on the "Treatment of Chronic Gastritis"? This author tells us that he easily verified his suspicion that the patient had chronic gastritis, but does not think it necessary to tell us how he knew and gives no gastric analyses nor blood count. He does tell us, however, that he succeeded in the treatment by means of zymacin, nuclein, papain, manola tonic, bovinin and sanguiferrin! Surely, with such an equipment the Pharmacopeia may be relegated to the ash box. American medical writers have occasion to blush for some of their confréres.

The journal which is ready to sell its columns to the nostrum vendor can not be relied on to give the best editorial advice or to take a firm stand on the right side where the interests of the public or of its subscribers are opposed to the interests of the proprietary manufacturers. The editor of such a publication can not be a worthy leader of medical thought. And he may expect to find his paper quoted to support sentiments that he never uttered. In a pamphlet published by the promoters of peptomangan various journals are quoted as sustaining the superiority of the peptomangan as shown in the Porto Rico trials. In reference to the journal quoted, it is found that the enterprising manufacturer has simply quoted his own advertisement attributing its statements to the journal as if it were an editorial utterance!

The journals by giving their space to extravagant statements regarding the effects of such remedies are fostering blind reliance on drugs and delaying the advance of truly rational therapeutics.

WHAT IS THE REMEDY?

What remedy can be proposed for this state of things? Can we demand that medical journals shall exclude advertisements of proprietaries altogether? This would probably be too rigid a rule, but some regulation might be adopted as to the form of advertisements and the character of the remedies which should be admitted to the advertising columns. If the consensus of opinion of the medical profession could be crystallized into some definite requirements in regard to the advertisements that should be admitted to the pages of a reputable medical journal, we might have some criterion by which we could determine whether a journal is worthy of our patronage.

If, instead of inserting in his reading columns concealed advertisements of proprietary remedies, the space were devoted to lessons on pharmacy and chemistry, the editor might educate his readers to a point where they could rationally decide on the true value of the novelties proposed for their use without making disastrous experiments on their patients. The editor who fails to protect his readers against concealed frauds, which is the only proper characterization for many of these "write-ups," is false to the trust reposed in him by the medical public.

EFFECT OF PROPRIETARY LITERATURE ON MEDICAL MEN.*

N. S. DAVIS, M.D.
CHICAGO.

The printed matter issued by the manufacturers of proprietary and exclusive medicines is as various as are their products. The smaller part has a high scientific value; the larger part is a more or less clever advertisement of wares for sale.

Naturally, as a monopoly of a good thing is sure to bring wealth to the manufacturer, almost every drug maker endeavors to place on the market one or many specialties of his own. To insure his exclusive right to manufacture them, it is usual for him to patent the process or trademark the name.

The clever manufacturers employ able men of science to test with care the physiologic and therapeutic actions of their drugs, and these reports, when given to us in full, are of genuine value. In subsequent advertising, however, the results obtained are summarized and often so skilfully that disagreeable effects are lost sight of or minimized. Moreover, these summaries are imbedded

* Read in a symposium on Proprietary Medicines and Nostrums before the Chicago Medical Society.

in a mass of optimistic writing by the advertiser or by physicians who record their impressions; not observations made with the accuracy which science demands.

Therefore, even the best of this printed matter, of which we all receive so much, is not to be trusted. On the other hand, so many things of value first come to us in this way that we can not reject it all.

Often, unfortunately, rank nostrums, disguised as chemicals of definite composition, are described in print that is a perfect imitation of the best class of advertising matter which I have just described.

That we may not be duped, it is necessary to know by reputation the chemists who vouch for the character of the drugs, also the reputation of the pharmacologists and clinicians who test their action.

The remainder of nostrum literature consists of descriptions of the impressions of various physicians as to the therapeutic effects of mixtures, which any clever pharmacist could duplicate if given the opportunity. The nature of the remedy is hidden, as a rule, in the brief statement that it is an especially pure preparation of some well-known drug. Although many therapeutic virtues are claimed for it, it is often inert or so potent as to be dangerous, unless its nature is fully understood. Such mixtures never should be used. If all members of the medical profession would absolutely refuse to prescribe ready-made mixtures, either in liquid, pill or powder form, they would destroy one, if not the greatest, hindrance to successful and rational therapy.

In the first place, it is impossible properly to adapt the dose of drugs to individuals if one dose is given to all. Moreover, ready-made prescriptions lead to slovenly therapeutic reasoning and practice. For instance, a mixture of digitalis, strophanthus and nitroglycerin is often given when the effects of the latter are not wanted, though those of the former are, because the giver is accustomed to dispense the combination whenever a cardiac tonic is needed.

The prescription recently copied by THE JOURNAL of the American Medical Association[1] from the original column of another and advocated by its author as sovereign in pneumonia illustrates a common ignorance of the composition of widely advertised and used proprietaries and an inclination to use them as though they were definite chemicals, not mixtures. The prescription to which I refer contains, first, a fair dose of acetanilid; second, sodium bicarbonate, and, third, bromo seltzer. The writer evidently did not know that the last also contained a fair dose of acetanilid and that in his combination he was giving a large dose of this powerful drug. Many physicians use nostrum mixtures at first because the sample is at hand, and later because it is easily dispensed, and the practice becomes a habit.

We can not blame manufacturing chemists for finding new things or advertising them as cleverly as possible. That they and the nostrum vendor are surprisingly successful in selling their wares is largely our fault.

Proprietaries are used in enormous quantities. All medical men are, to a greater or less extent, employing them; and it is skillful advertising which has made this so.

Assuredly, it is legitimate practice to try a new drug or chemical which promises to be useful, for if we did not there would be no progress in therapeutics. Unfortunately, a prompt recapitulation of results is rarely made, and useless drugs are not discarded as they should be. However, sometimes this does happen, notably in the case of Bergeron's treatment of tuberculosis and later in that of tuberculin and the *x*-ray. In a few months the whole medical world was apprised of the real value of these remedial agents.

We should see to it that all drugs are similarly weighed and labeled with their true value. Even our pharmacopeia contains inert and uselesss drugs retained because still prescribed and for which, therefore, a standard must be established.

Medical men are too prone to accept new drugs as they accept new ideas, because they are new, without sufficiently testing them or demanding the approval of recognized authorities.

I make a conservative statement when I say that on the desks of each of us from three to ten advertisements such as I have described are placed daily, but the education of medical men in therapeutics by manufacturers does not stop here. Drummers are about as numerous as circulars, and each gives a brief, carefully prepared lecture on the wares which he carries. A lecture which is often interesting and if it told the whole truth would be instructive. Unfortunately, only that which will help to sell the goods is told. It is often surprising, too, how ignorant the detail man is when questioned as to his wares on other points than those in the lecture which he has committed to memory.

It is not surprising that medical men have surrendered to manufacturers and accept their teaching, since their goods are advertised in almost every medical journal and not infrequently well exploited in so-called original articles in these publications.

Manifestly, the condition in which we find ourselves must be changed. That this may be accomplished we must, first of all, recognize the disease, so to speak, of which we suffer. Second, we should insist that the teaching of pharmacology and therapeutics in medical schools be confined to the drugs of the pharmacopeia. Third, we should take more interest in the pharmacopeia and demand that it contain only drugs of genuine worth, and that it be revised often enough to insure the admission of all valuable new ones. Let the pharmacopeia be made a standard for both the medical and pharmaceutical professions.

Lastly, a greater amount of pharmacologic and therapeutic research should be stimulated. During the second and third quarters of the last century a very large amount of knowledge of this kind was accumulated by painstaking research; but in the last twenty-five or thirty years the attention of those medical men who have been contributing to our knowledge has been centered almost exclusively on etiology, bacteriology and pathology.

It is not surprising that in proportion as the most original minds among us neglect the field of pharmacology and therapeutics the manufacturer seizes this opportunity to instruct us. For he can do his teaching in his own way almost unchallenged by authorities.

1. THE JOURNAL A. M. A., Jan. 27, 1906.

Good Advice on Writing Papers for Medical Meetings.—When writing your paper for the state meeting, remember several things; select a subject with which you have had rich and practical experience—anyone can read text-books without going a hundred miles, leaving work and business, and paying $3 a day to hear you read extracts from one; collect your thoughts, clarify and simplify them, boil them down and then write your paper; go over it again and cut out all non-essentials, and all self-evident data—and you will then have a paper from which everyone will learn something—and you will go home thoroughly satisfied and proud of your effort.—*Southern Medicine and Surgery.*

THE NOSTRUM FROM THE VIEWPOINT OF THE PHARMACIST.*

W. A. PUCKNER.
Professor of Chemistry, University of Illinois School of Pharmacy.
CHICAGO.

While the responsibility of the medical teacher for existing conditions will be discussed by another speaker, I can not resist this opportunity offered me, a pharmacist permitted to address physicians, to say that without question the insufficient instruction in materia medica, pharmacology, pharmacy and chemistry offered by schools of medicine is the direct cause of present conditions.

I wish to point out to you how this lack of proper training along the lines indicated has made the physician dependent on ready-made remedies, proprietaries and nostrums, and how this, again, has been the making of "patent medicines," has led to self-medication and to counter prescribing, and has been the cause of making pharmacists forget their professional standing.

As a teacher, I would like to add that not only has the instruction in these subjects been inadequate because of the limited time alloted to them and because the student is led to attach too little importance to them, but often also because of the instructor's lack of familiarity with the subject which he is supposed to teach. This condition is but too frequently brought to my notice by former students who, having graduated in pharmacy, have taken up the study of medicine. As an illustration, I may refer to an article by Dr. Galloway[1] in which he protests against some haphazard, incorrect statements made by teachers in schools of medicine. Dr. Galloway reports statements made in favor of a certain brand of chloroform as opposed to another kind; statements so unfair and unwarranted that they can but be taken to show the lecturer's unfamiliarity with the subject he teaches. Other instances are cited which show that the lecturers, not being sufficiently familiar with the chemistry and pharmacy of medicines, are led to draw on the imagination and to offer to students statements which are entirely at variance with the facts.

Since the newly-graduated physician, therefore, has but a limited acquaintance with the remedies which he must employ, his prescriptions are liable to be unsightly, nauseating or, because of incompatibilities, perhaps inert. As a result of this two consequences are probable: First, if the patient discovers the physician's incompetency, when again in need of treatment he will go to his pharmacist for advice, since the pharmacist at least is familiar with the remedies which are used in the treatment of disease; second, when the physician comes to realize his lack of familiarity with medicines then he most probably will fall back on the proprietary remedies, ready-made, with the dose on the label, of pleasant odor and taste and said to possess marvelous virtues.

The lack of familiarity with the common remedies often shown by physicians was strikingly brought to my attention recently. I was suffering from an attack of acute indigestion and called a physician; in due time the attendant placed a powder on my tongue and requested me to swallow it. The powder, which I later learned contained magnesium carbonate, at once formed a compact mass, firmly adhering to the tongue, much as plaster-of-Paris would. I asked for a little water and was informed that the physician had prohibited all food and drink, but that I might have a teaspoonful of water on promise not to swallow it. Naturally I removed the concretion still adhering to my tongue and made no further attempt to take the medicine.

Were such physicians but competent to judge the effect of the remedies which they administer the dependence on proprietaries would not be so bad, since most, or at least, many possess some merit. Unfortunately, however, the physician's training is likely to be such that he can not distinguish the rank fraud from the efficacious remedy, honestly made and sold. It is this inability to judge the effect of medicine which has brought about the custom, now almost universal, of outrageously exaggerating the virtues of these proprietaries. The following will illustrate how a physician often is led to use absolutely worthless remedies: Some years ago a preparation was placed on the market under the name of "Flora China," which was claimed to be "pure quinin sulphate," but to be tasteless and to do all that the bitter quinin would do. In appearance the substance resembled quinin sulphate and it certainly was tasteless, but on examination[2] I found it to be nothing but crystallized calcium sulphate. Yet some five years later a student told me that a certain physician prescribed it and had used no other kind of quinin for years.

In this way a large portion of the medical profession has become dependent on the advertising literature and the detail men of proprietary dealers for the treatment of their patients. They listen to tales of the wonderful virtues of "bracemup" or "stimuline," written probably by a person having no knowledge of medicine whatever or perhaps compiled from obsolete medical works.

Recently a letter sent by a pharmaceutical house to its salesmen ("detail men") came to my notice. This letter, after stating that a successful salesman must be a student of human nature, etc., went on to say that the educated physician should be approached something like this: "Doctor, I have here a preparation of —— ——; if you employ this drug in your practice you will find that this preparation of the drug, manufactured by reliable and skillful pharmacists, contains the very best quality of the drug and is combined in such a way as to obtain the greatest good from the remedy." Then it went on to say that, as pharmacists, it is the business of the manufacturing pharmacists to put into the hands of physicians drugs of the highest quality, knowing well that physicians will know what use to make of them. The letter continued that, unfortunately, however, there were a great many physicians of inferior education along lines of materia medica and therapeutics with whom such arguments would fail and who must be told that a certain preparation is good for a certain kind of cough, that another remedy is a "winner" in the treatment of a certain brand of this or that disease and who like to read glowing testimonials of wonders accomplished. This letter in conclusion suggested that the salesman must judge which of these two methods to adopt in approaching the doctor. That in any case it would do no harm to flatter by assuming that the doctor knew his business, and later to change the mode of attack if they should find that he did not know his business.

Finally, let me illustrate how the use of proprietaries by the physician must cause a lack of confidence on the part of the patient, and induce self-medication, or cause counter prescribing by the druggist, and be the making of "patent medicines." While practicing pharmacy one day I was asked to prescribe for a man who said that he had contracted gonorrhea. Instead I advised him to

* Read in a symposium on Proprietary Medicines and Nostrums before the Chicago Medical Society.

1. Philadelphia Medical Journal, 1899, vol. iv, p. 993.

2. Abst. Proc. Amer. Pharm. Assoc., vol. xlv, p. 710.

consult a physician. Soon after I was summoned to the telephone and asked by a well-known surgeon for the name of "those black capsules that come in a flat box." In due time I was requested to fill the prescription, and although the capsules were taken out of their container and placed in an ordinary pill box, yet the patient recognized the familiar remedy at a glance and in no complimentary manner commented on the time and money wasted in consulting the physician.

Imagine the frame of mind of the patient who, having consulted his physician and paid his fee, learns that his prescription calls for orangeine or antikamnia, with which the daily press has made him familiar.

What do you suppose he will do when next he has neuralgic pain or any other pain; or if his sister or his brother or his aunt has any kind of pain?

But you say: "We do not prescribe remedies advertised in the lay papers. Yes, but how did Fellow's syrup, or worse still, McMunn's elixir, become a "patent medicine?" Because they were prescribed by physicians, who thus assumed the rôle of "advance agents." Rest assured that whenever a physician prescribes any of these remedies with nice, smooth, catchy names, no matter how illegible his writing, and even though he does not follow the advice of the promoters to direct that they be dispensed in original containers, with the "name blown in the bottle," patients will, sooner or later, learn what they are taking. If the remedy has the desired effect and cures this or that trouble the patient when next indisposed will purchase his medicine direct and dispense with the physician's services. Furthermore, he will recommend it to his friends, using the physician's name as a guarantee of its virtues. Next its advertisements will be transferred from the medical journals to the daily press and the physician will have officiated at the birth of another so-called "patent medicine."

A practice still more reprehensible, it seems to me, is that of supplying patients with "physicians' samples." Seeing that his physician tries on him remedies about which he plainly knows nothing, it is small wonder if in the future the patient will prefer to consult the "patent-medicine" literature of the daily paper or will study the placards on fence posts and in street cars to find some remedy fitted to cure him, since to him it must seem that his physicians did this when last consulted.

THE PROBLEM OF THE SYNTHETIC CHEMICAL COMPOUND.*

JULIUS STIEGLITZ, PH.D.
Professor of Chemistry, University of Chicago.
CHICAGO.

In the attention given recently in the medical and lay press to the manufacture of drugs and medicines, interest has centered naturally in two classes of manufacturers; on the one hand those who appeal directly to the ignorance or the vices of the public to buy their patent medicines and nostrums, on the other hand, those manufacturers who, under the ethical mantle of dealing only with the medical profession, have been palming off on it under false names and titles mixtures as bad as any produced by the first class. There is a third most important class of manufacturers requiring serious consideration, the manufacturers of the legitimate, so-called synthetic chemical compounds which are being so largely exploited in medicine. The most serious problem confronting us arises from the enormous increase in the numbers of such compounds. We may well ask ourselves: Why are there so many new synthetics? Have they any legitimate reason for existing? What safeguards if any need the medical profession insist on in dealing with these products of legitimate houses?

The source of the rapid increase in the number of these preparations lies undoubtedly primarily in the competition for trade, in the desire for gain. The phenomenal commercial success of such synthetics as antipyrin, phenacetin, saccharin, etc., stimulated enormously the search for similar treasure-bringing discoveries, both in commercial and in university laboratories. At the same time the great commercial houses understand very well that for real and continued success they must offer preparations of real, intrinsic medical value, and to secure these they have been compelled to make science their handmaiden, and to go at the commercial problem through scientific experimentation. In this way, they undoubtedly are doing a service to humanity as well as to themselves.

Speaking as a chemist, there is a legitimate, ideal goal toward which this branch of science has a right to strive; we have every reason to believe that with patient work we can improve vastly on the valuable alkaloids and similar compounds offered us by Nature. With out ability to establish the complex structure of these organic molecules, to modify practically at will any detail or part of the molecule, to create, synthetically, any new forms we wish to have—a systematic study of the physiologic effect of every characteristic part of such compounds ought to lead ultimately to a rational and systematic theory and practice of the effect of synthetics in medicine. The great work of Fischer on the vital relations between the configurations of the sugar molecules and their ability to ferment and support life shows us the goal is not an impossible one. It is true that we have made comparatively little progress toward this goal—chemists have given to the medical profession a number of more or less valuable febrifuges, some hypnotics, they have modified some alkaloids, given the profession homatropin as an occasional useful substitute for atropin, hydrastinin as a scientifically evolved improvement on hydrastin, and a few more advanced preparations, but their successes have been on the whole very few and this would be discouraging if history did not teach a lesson of patience. I think I can make my point clearest by referring to the parallel case of the anilin dyes. Chemistry has succeeded in wresting from Nature the supremacy in the preparation of these dyes, we can make at will more beautiful, more lasting, more washable colors of every conceivable shade than Nature has produced, and this has been accomplished through the slow, careful mastery of scientific principles and details, discovered through a great many original investigators. And yet, it took our greatest organic chemist, Professor Baeyer, fourteen years to determine exactly the nature of indigo, and it took about fourteen more years to develop methods for the successful manufacture of this one compound.

That one fact ought to teach us patience in our progress toward the goal of medical chemistry. The problem here is a far more complex one and a far more important one, but we do not see why it should not lead ultimately even to the chemical preparation of those specific antitoxins which we must now draw from animals. We are far from our goal, but the feverish competitions of great houses and university investigators form the hotbed in which the germs of success must ultimately grow.

This brings us to the main point of my remarks: In the evolution of the dye industry bad dyes were often

* Read in a symposium on Proprietary Medicines and Nostrums before the Chicago Medical Society.

thrown on the market, dyes that faded quickly, that would not wash, that we would now consider ugly; the cost of experience in this case was borne by the pocketbooks, perhaps by the tempers of the people. In the manufacture of synthetics, however, it is far more difficult to separate the good from the bad, and experience obtained at the expense of the one life, the one health of individuals, is too costly, and physicians do well to hesitate before this array of new synthetics. The manufacturers are interested parties—as they were in unloading bad dyes—many so-called investigations and write-ups under unknown names are as likely to be the bait in the trap. What are physicians to do? Shall they seek safety in standing still, or hesitate to take a forward step from fear it might prove a backward one? The only scientific solution of the problem as it seems to me would lie in the establishment of some institutions, perhaps international, for the impartial testing of promising new synthetics; or in default of such, in the formation of central bureaus of critical disinterested review.

The need of a check even on our great houses was brought home forcibly to my mind in some recent examinations I had occasion to make as a member of the Council on Pharmacy and Chemistry of the A. M. A.: a preparation from one of our great American houses bore in its literature the truthful statement that it is acetylamidobenzene-trimethylxanthine. I wonder how many physicians recognize that these thirty-five letters spell in simple English acetanilid plus caffein, a mixture as bad as any of those recently exposed, but coming from a great reputable firm and parading correct chemical synonyms other than those usually employed by physicians. This same firm widely advertises to the profession a certain hypnotic as being much safer than chloral—it bears in its description the statement that it is a compound of chloraethanal with a higher polyatomic alcohol, which is true. To a chemist that spelled at once chloral combined with glycerin—what physician, who would hesitate about prescribing chloral, would not like to use his own judgment as to whether chloral plus glycerin would be any safer? It seems to me, then, that physicians ought to insist that all chemical compounds whatever should pass before some reviewing board which will insist that the manufacturers give the plain truth, the whole truth and nothing but the truth!

THE RESPONSIBILITY OF THE MEDICAL TEACHER FOR EXISTING CONDITIONS.*

CHARLES SPENCER WILLIAMSON, M.D.

Professor of Clinical Medicine and Associate Professor of Medicine, College of Physicians and Surgeons; Consulting Physician to Cook County Hospital and Dunning Institutions.

CHICAGO.

THE TEACHER'S INFLUENCE.

The question of the influence of the medical teacher in the prescribing of nostrums goes hand in hand with the question as to how great an influence the medical teacher exerts on the student after he has graduated.

It may be said that the young practitioner is, in all essential details, an epitome of the ideas of his teachers. The more capable the practitioner, the greater his opportunities for practice and observation, the more extensive his reading, the more quickly does he become emancipated from this influence. After all, this is but natural and right. In the early days of practice, of what else should the tyro think when face to face with a difficult case, but of the teachings of his college days?

Just at this point it is essential that we emphasize something which is only too commonly lost sight of. The student of arts and letters, or the humanities in general, goes to an institution of learning essentially for the purpose of acquiring the methods which pertain to the investigation of his subject. It is of no sort of importance to him that he be familiar with any given detail. He is dealing rather with principles and generalities. He might be ranked as a very fair classical scholar and yet be totally unable to read at sight a given selection from a well-known classical author. It is all-important to the student of political economy that he know the method of that science, but it is by no means essential that he be familiar with any given set of statistics. These are in his books, to which he always has time to refer for the desired information.

PRACTICAL DEMANDS OF THE PROFESSION.

With the medical student the situation is vastly different. Not only must he thoroughly comprehend the methods of medicine, and be able to understand and apply the great fundamental principles, but in addition he must master the minutest detail of practice. It is by no means sufficient, to put the matter more concretely, that he have only a general knowledge of asepsis, but he must be able to put into instant practice all the minutiæ of rendering a room, a patient, an instrument aseptic. He may understand very well the general principles of the action of digitalis on the heart, or of iron on the blood composition, and yet practically be a complete failure unless he have at his fingers' ends the precise dose, mode of administration, and clinical effects of both. The medical student, therefore, must learn methods, *plus* the details of putting these mehods into practice.

The physician differs again from most of his brethren in other professions, in that his knowledge must be so coordinated and correlated as to be available for instant use, without reference to any authority. Now, the application of these facts to the question at issue is tolerably plain. The thoughtful teacher recognizes that the principles of the art and science of medicine must come first. They are the *sine qua non* for the successful understanding of any given medical topic. The surgeon very properly takes up, first, the problems of general surgical pathology. These once mastered, he may proceed to the details of practice. The professor of practice or of materia medica treats of the general action of drugs, and, when these are thoroughly understood, proceeds to the application of the knowledge acquired, by discussing their use in a given case. When one reflects on the enormously overcrowded medical curriculum of today, when every teacher on the faculty is clamoring for more hours for his especial subject, it is easy to understand that some things must suffer, and therapeutics is too frequently the one affected.

How is it with the clinical side of instruction? The professor of practice presents a given medical case, discussing in full its etiology, pathology and diagnosis. And then how about the treatment? In the main this is dismissed with a short reference to the general principles involved. Let us assume the case has been one of influenza. The student may be told that in addition to the ordinary precautions to be taken in any infection, the treatment should be supporting, with cautious use of the antipyretics, and stimulation when necessary. The trained clinician knows precisely what such general directions mean, the student has a very hazy and im-

* Read in a symposium on Proprietary Medicines and Nostrums before the Chicago Medical Society.

perfect understanding of them. In consequence, when he receives his diploma he has a fairly large amount of theoretical, and some practical knowledge of pathology and diagnosis, with a very hazy and indistinct idea as to just precisely how he will treat a given case. This is not said in any sense of criticism of our clinical teachers. On the contrary I firmly believe that the very men whom we respect most for their ability, the men who are admittedly our most skilful diagnosticians and consultants are probably most at fault. The very profundity of their knowledge in regard to the pathology and diagnosis of disease, coupled with the fact that most of our recent advance in knowledge has been along the line of diagnosis rather than treatment, makes them reduce the time they devote to the medicinal therapy to a minimum.

THE NOSTRUM MAN'S OPPORTUNITY.

Time and again our most brilliant teachers will finish a clinic on chlorosis with the statement that the patient has been getting iron, and has been improving under its use. In one sense the details of its administration are unimportant, but it is exactly such teaching as this which leaves the student's mind in a receptive condition for the literature on the thousand and one iron nostrums which will pour in on him from the day he hangs out his shingle. The nostrum man thoroughly appreciates this fact. He takes particular pains to send with the very attractive looking samples precise information as to dose, administration, etc. Our young physician knows that iron is indicated. Why then should he not give preference to a preparation which, as the circular of information very distinctly tells him, will produce results far beyond anything contained in the pharmacopeia?

If in that clinic on chlorosis the teacher had spent ten minutes telling the essential facts in regard to the iron preparations; and, further, that many of the newer iron preparations are intrinsically worthless, the value of that clinic from a practical standpoint would have been doubled. If the student were told plainly, and without any equivocation, that the claims of many nostrums are absurdly extravagant, and that it is not in the least difficult to find for every nostrum so vaunted a better and simpler preparation from the pharmacopeia, he would hesitate before putting his signature to a prescription for any such preparation. He should be taught to estimate at their true value the opinions of physicians whose principal claim to fame rests on the fact that their name is continually seen signed to a report on the efficacy of somebody's cure-all. Indeed, even at the risk of having the student's opinion of the medical profession slightly lowered, it might be well to tell him in plain Anglo-Saxon terms that more than one person has written laudatory reports of somebody's preparation for no other consideration than that he was well paid for it.

It may be objected that the medical teacher's influence reaches only to the men in their first few years of practice. It may be said, "Oh, it is of no consequence what the very young practitioner does, for in the first year or two of his professional career he has little or no practice, and by the time he has acquired a practice he will have learned better." The reverse of this is apt to be the case. "As the twig is bent, the tree is inclined"—and the man who has acquired the habit of prescribing nostrums is likely to continue it.

NOSTRUMS PRESCRIBED BY PRACTITIONERS.

It seems to me that the very best possible way to ascertain just how extensively nostrums are being prescribed by the profession at large, is to go over the files of any reputable pharmacist and see what proportions of prescriptions call for such nostrums. In order to avoid any possibility of personalities I have requested a friendly pharmacist to go over some hundreds of recent, consecutive prescriptions, with the result that just 20 per cent. of these prescriptions call for some of these objectionable nostrums. I do not for a moment lose sight of the fact that a considerable number of proprietary preparations may be found by our Council on Pharmacy and Chemistry to have sufficient value to entitle them to consideration. But the nostrums to which I refer are such as are wholly objectionable because of their mode of advertisement, or because of the absurdly extravagant claims made for them. From this it will be perfectly apparent that the nostrum evil is one which has touched to a greater or less extent, not only the young and inexperienced practitioner, but also men of years of experience and reputation, in some cases the very elect. It would serve no useful purpose to give a list of the nostrums which I found as constituting 20 per cent. of the prescriptions just referred to. Nor is it part of my task to comment on these individually as this has been relegated to the Council on Pharmacy and Chemistry, which has much better sources of information, and therefore better judgment, than anyone working singly could possibly have.

THE CURRICULUM AT FAULT.

Another standpoint from which the medical teacher may be regarded as in a measure responsible for existing conditions, is to be found in the very anomalous position occupied by the subject of medicinal therapeutics in a large number of our medical schools in bygone years, and which, to the best of my knowledge, still obtains to a considerable degree. I refer to the very loose connection which has existed between medicinal therapeutics and the practice of medicine. Materia medica and drug therapeutics have been hitherto regarded as essentially elementary branches, and as such, usually relegated to the freshman and sophomore years in the curriculum, while the study of the practice of medicine is deferred to the junior and senior years.

Granting that materia medica, so-called, may be regarded as a distinctly elementary subject, the same thing can not be said of therapeutics. It seems utter folly to tell a sophomore student, for example, that the nitrites are useful in angina pectoris, when that same student has not had a single lecture on the practice of medicine, and has not the remotest idea what angina pectoris is, how it is produced, or in what way the nitrites might prove serviceable. Or, again, how absurd to tell another sophomore that digitalis is a most valuable drug in many heart lesions in the stage of decompensation, when he has no conception whatever as to what decompensation means. These are not theoretical points, but practical difficulties encountered in teaching that subject. In order to have our curriculum pedagogically logical, the teaching of therapeutics must go hand in hand with the teaching of internal medicine. All of us will admit, I think, that our students on graduation are more deficient in therapeutics than in anything else. The reason seems to me to be self-evident, and to lie in the fact, already stated, that the instruction in therapeutics and practice is separated by an interval of a year or more instead of being given simultaneously.

CONCLUSION AND SUMMARY.

I am well aware that it is much easier to point out defects than to suggest the remedy, but it seems to me that a considerable portion, if not all of the instruction in therapeutics proper, should be under the auspices of

the chair of practice, and closely correlated with it. This would certainly be of much greater advantage to the student than the crowding of a host of minor specialties into the senior year of the curriculum, a practice now so generally in vogue in our schools. He would come to the day of graduation with his knowledge of therapeutics and practice both equally fresh in his mind, and with a feeling of sturdy independence in regard to the claptrap literature dispensed by the nostrum vendor.

To sum up the situation, the medical teacher can not escape the reproach of having contributed in one way or another his share to the creation of the existing deplorable state of affairs. This responsibility is, I believe, of a purely negative character.

1. The subject of medicinal therapeutics in general has been subordinated in an undue degree to pathology and diagnosis.

2. In his teachings of therapeutics clinically the medical teacher has contented himself too often with vague general statements instead of recognizing that the subject is essentially one of detail, and entering on its discussion in the most minute way.

3. The teacher has presented the subject of therapeutics at the psychologically wrong moment instead of in direct connection with the subject of practice.

4. The teacher of materia medica has often failed to do his complete duty in not acquainting the student with the situation in regard to nostrums as it actually exists, and by thus sounding a note of warning, sending him out forewarned and forearmed.

WHY THE WORK OF THE COUNCIL ON PHARMACY AND CHEMISTRY IS NECESSARY.*

J. H. LONG.
Professor of Chemistry, Northwestern University Medical School.
CHICAGO.

When it has been made plain that the public or some section of the public has been systematically outraged for years the question arises, What are you going to do about it?

There was a time when most of the medicines used by physicians were prepared by themselves or by methods with which they were familiar, just as there was a time when every family prepared most of the food which it consumed. But those days are past, and trusting others to manufacture our foods and our medicines has led to gross abuses in which the general public, the physician and the patient all suffer. The food problem and the medicine problem have much in common, and a study of what has been done in the one case suggests what may be done in the other.

Just here it must be remarked that the trouble is not because of lack of supply of good food or good medicine. The reverse is true. In the world to-day there is more good sugar, good meat, good flour and good vegetables than ever before. Agriculture has advanced. So there is more good quinin, good calomel, good opium or good chloroform in the world than ever before; manufacturing pharmaceutical chemistry has also advanced. This is not the difficulty, but it is right here: We are being ridiculed, mystified and sometimes even bribed into believing that the thousand and one new things are so much better than the dozen or fifty old things with which we have been long familiar and the virtues and faults of which we know. The root of the whole evil may be referred back to the advertising mania which has taken possession of this country. It seems to be a practical truth that any article, no matter how bad it is, may be sold by sufficient advertising. With great gain to the people as a whole, 95 per cent. of all advertising might be dispensed with.

"CONCENTRATED" FOODS.

Indirectly the growth of the science of chemistry is responsible for the acceptance of some false notions. In the early days of physiologic chemistry people were taught to believe in the possibility of certain extracts or concentrated forms of food, and before scientific men could clear up the matter the general public caught the idea and has held it more or less tenaciously ever since. Hence the possibility of convincing a man by blatant bill-boarding or some other objectionable form of advertising that a pound of a cheap mixture of glucose and toasted bread contains more nourishment than ten pounds of meat. Hence the possibility of persuading a man to think that a concentrated, so-called predigested or otherwise doped-up breakfast food is better than honest oatmeal or bread and butter. Parallel to this blind faith in highly advertised and often very inferior foods is the common faith among physicians in the virtues of the so-called synthetic remedies, especially if they are made in Germany. In too many cases there is little justification for this faith.

But these evils, bad as they are, are being cured, and in spite of the Illinois Food Commission. The able men connected with the Department of Agriculture at Washington and with some of the food commissions outside of Illinois are gradually educating the public. Some day we shall have a national pure food law, and such frauds and misrepresentations as are now frequently heard of will become rare.

THE ADVERTISING OF NOSTRUMS.

But how is it with drugs and medicines? I spoke a moment ago of advertising, and it so happens that the overzeal of the advertiser has suggested the way to begin the correction of the whole matter. The manufacture of standard drugs is a legitimate and long established business which requires no special advertising. Good goods sell themselves with very little booming. They are like wheat. But fake medicines, like fake foods, must be advertised, and widely advertised, to sell. If the publicity can be checked the frauds must fail. The medicine manufacturer naturally looks to the medical journals as his advertising medium. If in the minds of the publishers of such journals the right sentiment against fraud can be created the battle for honesty and decency here is practically won.

But in striving to shut out the advertising of fake medicines there is always some little danger of excluding also a really meritorious article, and occasionally something of the sort appears. The physician can not now be expected to discriminate between the good and the bad which is offered him; that would require far too much special knowledge. The nature of food stuffs and the limitations in the manufacture of foods are pretty well known, and false claims are very easily disproved. But it is not so with most drugs. Some of the newer things are powerful and excellent remedies. With the advance of organic chemistry greater possibilities are developed, and we must admit that we do not know the limitations here at all. Hence when the manufacturer or his agent offers a description of his new ware for advertisement the publisher is not, off hand, justified in rejecting it unless the claim made is on its face inconsistent and absurd. There should be some way of proving the truth or falsity of the claim before accepting

* Read in a symposium on Proprietary Medicines and Nostrums before the Chicago Medical Society.

or rejecting an advertisement, and such considerations were among the first to suggest the value and importance of work like that undertaken by the Council on Pharmacy and Chemistry.

It may be said that the publisher is not responsible for the truth of what goes into his advertising columns. That depends on what he publishes. The daily papers may advertise real estate, or $10 hats marked down to 39 cents, and the buyer can see for himself. But with the advertising of drugs and medicine the case is wholly different and the responsibility great. This responsibility is very great if the advertising medium happens to be a medical journal, for from such a publication we have the right to expect consistency if nothing more. Until recently few publishers of medical journals gave much thought, apparently, to what went into their advertising columns, since most of these journals carried, and some continue to carry, advertisements of medicines as preposterous as Lydia Pinkham's, Peruna, and Wine of Cardui. This shameful fact points to a peculiar conception of "ethics" in medical journalism and makes us wonder where, in the code of the medical editor, lies the distinction between an honorable profession and a conscienceless trade.

WORK OF THE COUNCIL ON PHARMACY AND CHEMISTRY.

Two or three years ago the editor and others connected with THE JOURNAL of the American Medical Association began to talk of systematically controlling the character of the matter in the advertising pages. A number of pharmacists and chemists were consulted as to ways and means. Finally the various suggestions took tangible shape and about a year ago the Council on Pharmacy and Chemistry was organized. This council consists of three committees—one on pharmacy, one on pharmacology and one on chemistry. The men constituting the council are active in different lines of scientific work related to medicine, and with this division of labor it is possible to scrutinize an article from several standpoints. Very often samples of the articles to be advertised have been sent to all members of the council for study. Already some good results have been reached and a number of frauds have been publicly exposed. I recall, for illustration, the acetanilid mixtures, but these are not all. They were merely the beginning of a series, and as the work of the council progresses it will do for medicines what those connected with some of the state food commissions are doing for what we eat. Surely the medical man should know the exact nature of what he is asked to prescribe, and the work of the council is to find out and publish as far as possible the true nature of all articles of remedial nature offered to the physician.

This is a difficult undertaking and haste can be made but slowly. Above all things else, the work of the council must be correct, since great interests are at stake and justice to all must be done. The council does not care to pry into the secrets of the manufacturer's business, but it does insist on knowing the truth about the article manufactured if it is to be used in the treatment of disease. Hundreds of routine analytical and other examinations have been made and a good part of the time of the council has been consumed in investigating and, in some instances, showing up the fraudulent mixtures described as synthetic, which bear about the same relation to real synthetic preparations that a mixture of tacks, paving stones and ostrich plumes would bear to gold watches. Legitimate medicines have nothing to fear, but trash, hiding behind false descriptions, must be brought out into the light.

THE PARASITISM OF THE TUBERCLE BACILLUS AND ITS BEARING ON INFECTION AND IMMUNITY.

THEOBALD SMITH, M.D.
George Fabyan Professor of Comparative Pathology in the Harvard University Medical School.
BOSTON.

(*Concluded from page 1254.*)

To return to our subject of focal immunity. This, as contrasted with a general resistance, is probably the chief stumbling block to successful artificial immunization. To bring about the latter the whole body has to be exposed to the immunizing (and toxic) substances, as there is no other way of reaching certain avenues or portals of entry which are exposed to invasion. We might, for instance, cause the inhalation of an impalpable dust or spray of ground tubercle bacilli to increase the resistance of the lungs in the healthy and the diseased, but then the greatest care would have to be exercised not to give an overdose to an affected lung; otherwise a very severe or even fatal congestion due to the local tuberculin reaction might result.

This problem of local immunity and its relation to a general immunity has occupied my attention for a number of years. Beginning in 1898 I carried out a long series of experiments on guinea-pigs with bacilli killed at 60 degrees and 100 degrees centigrade to see how far a focal or local immunity contributed to a general resistance. These experiments have been frequently interrupted and are still incomplete partly because the equipment needed to protect attendants has not been available. So far only dead bacilli have been employed throughout. The animals used were guinea-pigs. No striking results have been obtained, and hence the work has remained unpublished. The experiments bear, however, on the subject before us and I shall briefly refer to them here.

If we inject a certain amount of a suspension of tubercle bacilli in some different fluid, and killed at 60 degrees centigrade, into the peritoneal cavity of guinea-pigs, no immediate effect is produced. There may be at first slight loss in weight or none at all. After four to eight weeks the guinea-pig, outwardly well, is sensitive to tuberculin. An ordinary dose may kill it or reduce its weight considerably. At this time the peritoneal cavity may or may not show any local proliferation. In the omentum some nodules may be found centrally disintegrated, soft, like pus, but consisting only of the usual fatty débris. The inner wall of the nodule is smooth, there are no signs of a progressive disease anywhere recognizable with naked eye or in sections with the microscope.

If we now inject a second similar dose, the guinea-pig within twenty-four hours begins a prolonged tuberculin reaction associated with fever and rapid loss in weight. If we examine the peritoneal cavity after one or more weeks, we now find considerable hyperplasia of the omentum, more rarely eruptions on the peritoneum of the abdominal wall. The omentum may become very large and adhesions may bind it to various organs, especially to the upper small intestine and lead in some cases to intestinal hemorrhage and rapid loss in weight, even death.[12]

This second severe reaction I regarded as due to the rousing of a local immunity by the first reaction. The

12. Since making these observations I have asked myself whether some of the tubercular eruptions of the peritoneum, cured by operation, may not have been due to dead or nearly dead bacilli discharged from an old focus on a promptly reacting, because partly immunized, membrane.

bacilli first injected into a neutral territory were probably largely carried off into different tissues before any local reaction took place, for I found histologic traces of their presence in the liver, spleen and bronchial glands. The phenomenon is thus similar to the invasion of the lymph nodes in the neutral body. At the same time many bacilli remained in the omental tissue and in the immediate neighborhood of the abdominal cavity. The second injection caused a prompt reaction on the part of the tissues first invaded and the bacilli were largely held there; hence the great proliferation of the omentum.

This increased local reaction following invasion is a general phenomenon, not limited to tuberculosis. When animals of more than the usual resistance are inoculated with septicemic organisms, the local reaction is always more severe and the disease more prolonged than in the most susceptible. If very susceptible animals are first partly immunized, the local reaction following the test inoculation grows more severe, parallel with the immunity, up to a certain point.

The question now arose, How much immunity have other distant tissues gained by this intraperitoneal local vaccination? If more or less general resistance is gained, why not induce with dead bacilli local foci in the periphery of the body under the skin, for example, where they can be controlled and watched? To test this, the abdominal cavity and the subcutis were used. A long series of guinea-pigs were inoculated, some into the abdomen, some under the skin, some with bacilli killed at 60 degrees centigrade, others with those killed at 100 degrees centigrade. The cultures were all relatively young cultures, both human and bovine, grown on dog's serum. The conditions were made as uniform as possible. In order to estimate the relative reaction caused by the subcutaneous and the intraperitoneal injections the subcutaneous focus and the omentum were examined histologically. In general it may be stated that there was evidence that one injection had some influence on distant parts of the body, but this was distinctly below the influence imparted locally.[13]

IV. SOME SUGGESTIONS CONCERNING THE PRACTICAL APPLICATION OF METHODS TO PRODUCE IMMUNITY.

The experiments made on cattle with human tubercle bacilli by Behring, Pearson, Koch and others have shown that a pronounced resistance to living bovine cultures may be established even in young animals. This procedure is, of course, inapplicable to man. In the immunization of cattle two factors operate very strongly toward the success of the process: First, the intravenous injection of the bacilli which carries them to every part of the body and especially to the lung tissue where we know the bacilli are likely to be held back in large numbers. Here they are most needed to produce a local resistance in the most frequently exposed and diseased organs (lungs and lymph nodes) of the body. It is doubtful that the bacilli multiply at all after injection.[14] In the second place, the postmortem examination of spontaneously and artificially infected cattle has led me to believe that cattle are in a fair state of equilibrium with their bacillus and that there is needed but a relatively slight impulse at the right place to establish a resistance which will promptly suppress the invaders.

The investigations of Nägeli, Necker and others which reveal a very high percentage of latent or arrested infection in the human subject also indicate that the normal human being possesses considerable resistance and that after infection only a slight impulse efficiently applied may suppress the disease at an early stage. This encouraging possibility leads me to believe that there is a great opportunity for some form of preventive inoculation before the disease has fastened itself on the predisposed subject, if such a process could be introduced. This vaccination should be equally applicable before and after infection, and for the purpose of discussion for the time being may be regarded as identical. The general outcome of the investigation with bacilli killed at various temperatures has encouraged me to suggest their use for immunization. The very fact that they are so much more efficacious than the old tuberculin in rousing the antagonism of the body is significant. But it may be said the injection of dead bacilli will lead to a local focus, an objection which Koch tried to overcome at the start by extracting the bacilli and so producing the old tuberculin. It may also be asked what advantage can there be over the ground and crushed bacilli which have been subjected to no heat whatever and which are now being used by A. E. Wright and others in the treatment of chronic skin affections. It may even be urged that immunity or increased resistance has been attained in exceptional cases by the repeated injection of the old tuberculin. Macfadyan and C. Sternberg refer each to such a case. A relatively high degree of resistance has been reported by Koch to be attainable with his new tuberculin TR. There can be no doubt that all the preparations emanating from tubercle bacilli or the culture fluids contain substances which induce some resistance. If the reaction of the body is made up of several factors, as I have tried to explain, then the strengthening of any one factor may favor the final resistance produced.

The advantages which, I believe, will flow from the use of bacilli killed at a low temperature are twofold:

1. The creation of a local focus of ever so slight a character, let us say in the subcutis, may lead to the production of immune bodies which, radiating from

13. In connection with these I tried to see if the injection of tubercle bacilli heated to one hundred degrees centigrade would produce any impression on a rapidly fatal infection with living bacilli. Eighteen guinea-pigs were used. In the first half of the experiment some received one injection of boiled bacilli into the abdomen, others the same into the subcutis. After eight weeks they and controls received a surely fatal dose of living bovine bacilli into the abdomen. I knew that none would resist this dose and I simply wished to see what differences might appear. The abdominally immunized pigs lived longest, next came the subcutaneous cases and then the controls. The gain in prolonged life averaged only about seven days for the protected pigs. But the significant features of the experiment were exhibited in the course of the disease. The controls became feverish on the ninth day, yet even sixteen days later than this the vaccinated pigs were still well and active. Soon, however, they became ill and died suddenly. Here the immunity held the disease in check for a time, but when the resistance was finally overcome the process was very rapid. In the second half of the experiment, the guinea-pigs received two preliminary doses of boiled bacilli, one into the abdomen, the other under the skin. The same early checking of the disease was seen, a decided difference between treated and untreated being noticeable. All, however, succumbed; the average survival of the treated was about fifteen days longer than that of the untreated. The contrast would probably have been more striking if I had limited the test to a small number of fatal doses of bovine bacilli, rather than to the large dose actually given. Experiments similar to this have probably been made by many others before.

14. It is of interest here to note that according to Behring the intravenous injection of these human bacilli into adults may cause a fatal pulmonary edema, which we may explain as a local tuberculin reaction in infected animals. I described a similar condition in rabbits several years ago. After intravenous injection of certain cultures mid-way in virulence between the bovine and the human types, a fatal pulmonary edema and hyperemia may appear after four or five weeks. This is probably a true tuberculin reaction of the lungs, due to the extensive destruction of tubercle bacilli and the liberation of poisons. Similar pulmonary accidents in goats were described by Arloing.

the focus, may prove efficacious. These foci may be multiplied by simply changing the point of injection. It may be that the very objection urged by Koch against a local focus, namely, that the immunizing substances remain there, is the very essence of the whole process. At any rate, we have no reason for believing that the crushed or ground bacilli or even the tuberculin TR. is diffused more rapidly after the reaction of the body has been roused. Levene found that even fats repeatedly injected subcutaneously finally led to a local reaction with induration. In looking over the literature recently I was surprised and gratified to learn that Maragliano had recommended some such mode of treatment in his Philadelphia address.[15] Such local foci can be watched and their behavior correlated with the general subjective and objective symptoms.

The second advantage to which I wish to call attention concerns the material to be injected. In the production of immunity the tubercle bacilli to be used should be as recently isolated as possible and grown on blood serum to which pieces of sterile animal tissues may be added if desirable. If the theory I have advanced be true, that the body first acts on some product of secretion in the bacillus which has taken the form of a protective envelope, then the more recently isolated the culture and the more nearly the culture medium approximates the living body the more likely the active production of this envelope. This, of course, should be present in the bacilli to rouse to greater activity the antibody or opsonin after injection. The products in the market are prepared on a large scale from actively multiplying bacilli. A long experience leads me to the inference that there is an inverse relation between virulence and activity of multiplication. I have also pointed out that the slow accustoming of tubercle bacilli to media on which they at first absolutely refuse to multiply suggests the throwing off of some restraint (such as an envelope) either by all bacilli gradually or through the selection of a few which more quickly adapt themselves. The use of such early cultures of tubercle bacilli, grown on appropriate media, carefully killed at 60 degrees centigrade and tested with proper precautions before application, is within the reach of every hospital or sanatorium dealing with tuberculous patients.

My reason for presenting a method which I myself have not tried is because I have no opportunities for such trial, and I am convinced that the delicate methods of immunization can not be successfully tested on any animals, except perhaps monkeys and cattle, and there are obvious objections and difficulties to be met in the use of either species. I believe that this method should at least be given a trial, although its execution will require considerable personal care and the observance of minute details which the medical profession is inclined to throw on the commercial bodies who manufacture biologic products, but from whom such kind of work can hardly be expected. Of especial importance is the test that the heated bacilli are actually dead, for the temperature of 60 C. is the critical temperature, below which tubercle bacilli are probably not destroyed. Experiments still incompleted indicate that bacilli killed in this way possess properties approaching the living organisms.

CONCLUSION.

In conclusion, I wish to allude briefly to the struggle against tuberculosis from the point of view of the bacillus itself, for the slight changes which this parasite undergoes are writ large on the history of mankind. By spying about the enemy's camp we may learn much for our own safety.

The tubercle bacillus is undoubtedly open to modification, and we may safely believe that there are a large number of races or varieties in existence. Even among the small numbers which we are able to study carefully in the laboratory, there are constant differences indicated by biologic and pathogenic tests. These must be the result of natural selection and brought together perhaps by the great immigration movements of the present era.

The thesis which I tried to discuss recently is that the tendency of infectious diseases is toward a balanced parasitism, with a reduced mortality, but not necessarily a reduced morbidity as a result. This is due to the selective adaptation of both host and microbe. For the latter the most important need is the establishment of a definite mode of entry and exit. In the case of the tubercle bacillus the chronic infection of the lungs is the most favorable type of disease for the microbe itself. This selective adaptation will go much farther, I believe, and we shall undoubtedly meet with bacilli of very low invasive power which find a favorable nidus for multiplication in bronchial secretions. There is already some evidence that tubercle bacilli in sputum do not always signify serious consequences.

The only way to determine the relation between pathogenicity and character of the disease would be a study of the bacilli themselves. This would throw such an additional burden on clinical medicine that we can hardly hope for much progress in this direction. These very attenuated forms would become, as it were, the parasites of the sick lungs rather than of the normal ones. They would take the same position which pneumococci, streptococci and staphylococci occupy in the upper air passages.

The influence which a possible immunization of the human race might have on the destiny of the tubercle bacillus is open to debate. In the first place, all immunization is a confession that the parasite has broken through barriers and has come to stay. The only way to suppress an infection is to do so rather than to establish a compromise by simply increasing our resistance. The latter is admirable from every point of view, but it is not by itself going to eliminate tuberculosis. The only way to accomplish this is to prevent the bacillus from attacking a new subject. Immunization, combined with isolation and other preventive measures, would probably place a decided check on the disease, while immunization by itself alone would lead eventually toward the selection of especially virulent races of the tubercle bacillus which, producing a mild disease in the partially immune, would probably cause a very severe disease in the unprotected or unvaccinated. If the method of immunizing cattle now made generally possible by the commercial exploitation of Behring's bovovaccine should become widespread, we would be treated to a most valuable object-lesson of the effects of this process on the protected and unprotected. With the introduction of such a method there is likely to come a slackening of the usual preventive measures and a more indiscriminate dissemination of tubercle bacilli followed eventually by the appearance of more virulent races of bacilli.

In this fragmentary exposition of the parasitism of the tubercle bacillus I have left many phases of the subject untouched, many statements undeveloped and cer-

15. Medical News, lxxxiv, 1904, p. 625.

tain theories quite unprotected. My purpose in presenting them is not so much to produce conviction as to stimulate others either to develop them further or else to rout them and to put something better in their place. They may be regarded as working hypotheses through which I have attempted to correlate existing data, my own studies serving merely as a guide through this Babel of theories.

The best that the laboratory worker can do is to suggest principles or laws which must be intrusted to the clinician, if he will accept them, to be developed and applied to the many variations which actual spontaneous disease manifests. It is also true that the working out of methods in the laboratory and their clinical application are two wholly different problems. Experimental and clinical medicine must work hand in hand, with the closest co-operation, if one does not wish to disappear in pitfalls known only to the other.

Special Article

THE PHARMACOPEIA AND THE PHYSICIAN.

CHAPTER XIX.

TONICS (CONTINUED).

Manganese.

Manganese is not absorbed from the alimentary canal after ordinary doses, hence it acts as a hematinic only in so far as it spares iron by uniting with the sulphur which occurs in the intestines in the form of compounds.

Manganese, therefore, would hardly deserve consideration here if it were not for its widespread use, thanks mainly to the skilful and none too scrupulous methods often employed in the exploitation of certain nostrums containing it.

It is not probable that manganese possesses any advantage whatsoever over the numerous official preparations of iron.

The so-called peptonized manganese preparations, generally solutions of peptone to which some salt of manganese has been added, may be obtained from reputable dealers in chemicals, or may be made by any retail pharmacist who has the necessary educational qualifications to conduct even the very simplest chemical experiments.

A mixture containing iron peptonate and manganese, and one that in many respects is superior to the preparation so extensively sold to the laity, in this country, as "Peptomangan Gude," has been included in the new edition of the National Formulary, now in press. Where it is desired to use a simple solution of manganese peptonate, it may be prescribed as follows:

R.	Mangani peptonati	℥v	20
	Syrupi aurantii	℥xii	50
	Aquæ dest. q. s. ad	℥x	300

M. Sig.: One tablespoonful after each meal.

It should be remembered, however, that dry preparations of peptonates of iron or manganese, do not keep well, and it will usually be found to be preferable to have a reliable pharmacist prepare a solution, similar to the compound solution of peptonate of iron with manganese, of the National Formulary, which is preserved by the addition of a small quantity of alcohol, with sugar and aromatics.

OFFICIAL PREPARATIONS OF MANGANESE.

The official preparations of manganese are limited in number, and, as suggested above, are even more limited in their practical application as tonics or hematinics; they are:

MANGANI DIOXIDUM PRÆCIPITATUM.—U. S.—Precipitated manganese dioxid is a new preparation that has been added to replace the formerly applied crude product. Manganese dioxid, as now official, is directed to be made from manganese sulphate and should contain not less than 80 per cent. of manganese dioxid.

Average dose: 0.25 gm. (4 grains).

MANGANI SULPHAS.—U. S.—This occurs as colorless or pale pink crystals that are soluble in less than one part of water, but insoluble in alcohol.

Average dose: 0.25 gm. (4 grains).

POTASSII PERMANGANAS.—U. S.—This substance has been mentioned in the chapters on disinfectants and antiseptics. In connection with tonics or hematinics it is of interest only as the source of some of the now popular organic preparations of manganese.

Arsenic.

It is not positively known whether arsenic is an essential constituent of the human body or not.

Segale, using penicillium brevicaule, with which infinitesimal quantities of arsenic may be diluted, found it widely distributed in animal tissues, and Bertrand found it in eggs, particularly in the yolk.

Wieser concluded that arsenic is not a constant constituent in animal and human tissues, but that it is accidentally present.

When one considers the distribution of arsenic in plants, in sea water and in many springs, it is apparent that abundant opportunity occurs for its entrance into the body, and, owing to its slow excretion, the organism may rarely be without traces of it.

If minute traces of arsenic are essential to the well-being of the body we may be sure that the ordinary food insures an abundant supply.

Gies found that those members of a litter of rabbits which received arsenic grew faster than the others, while female rabbits under its influence bore larger young. This increased rapidity of growth has been observed by some, but not all, subsequent investigators. In this connection the observation of arsenic in the yolk of egg is at least suggestive.

The toxicology of arsenic is of peculiar interest because of its frequent use with fatal effect and because the appearance of the earliest symptoms are used as a guide in the therapeutic use of the substance.

The most striking effect of acute arsenical poisoning is seen in the symptoms closely resembling those of Asiatic cholera, and which are explainable by the characteristic action on the capillaries, particularly those of the abdominal region.

The capillaries appear to suffer a peculiar paralysis and dilation, resulting in an enormous increase in permeability. The escaping plasma of the blood makes its way into the intestine and, coagulating, gives rise to the "rice-water" stools. The withdrawal of the blood from the rest of the body into this region and its loss, as mentioned, causes the usual symptoms of collapse.

The direct effects on the heart are too slight in such cases to be considered as important, and the corrosive action of arsenic is too slowly developed to be concerned in the immediate effects just described, which rapidly follow the absorption of a poisonous dose. When the poisoning is more slowly developed, however, as after frequently repeated smaller doses, catarrh of the gastrointestinal tract is seen and fatty degeneration of various organs takes place, the picture somewhat resembling that seen after phosphorus poisoning.

Even therapeutic doses frequently repeated give rise to effusion of liquid, commonly noticeable in the swollen eyelids.

Arsenic is said to be capable of increasing the number of erythrocytes in anemia through its action on the bone marrow, but Engel found no increase in the mature red blood cells in anemia; other observers failed to see any change in the red blood cells or in the hemoglobin, though it is acknowledged that the bone marrow is stimulated to unusual activity.

It has been claimed that arsenic actually diminishes the number of red blood cells in chlorosis without altering the total amount of hemoglobin.

It has been suggested that the influence of arsenic on metabolism is due to alternate reduction and oxidation, arsenous and arsenic acids being repeatedly formed, but this seems hardly probable.

OFFICIAL PREPARATIONS OF ARSENIC.

ARSENI TRIOXIDUM.—U. S.—Arsenic trioxid was formerly official as Acidum Arsenosum. It consists of not less than 99.8 per cent. of pure arsenic trioxid. It may occur in transparent masses, like glass or in opaque masses resembling porcelain; more frequently, however, it is found as an odorless and tasteless white powder that is slowly but completely soluble in 100 parts of water but very sparingly soluble in alcohol. The presence of either alkalies or halogen acids facilitates the solution of arsenic trioxid, and this fact is taken advantage of in the preparation of the several official solutions. White arsenic, as it is still called, was not known in Europe until some time after the eleventh century. It was scarcely well defined until 1733, when Brandt accurately determined its nature and leading chemical properties.

Average dose: 0.002 gm. (2 mg. 1/30 grain).

ARSENI IODIDUM.—U. S.—Arsenous iodid occurs as an orange red, inodorous crystalline powder. It is soluble with partial decomposition, in about 12 parts of water and in about 28 parts of alcohol.

Average dose: 0.005 gm. (5 mg. 1/10 grain).

SODII ARSENAS.—U. S.—This occurs as colorless, transparent, odorless prisms that are soluble in less than two parts of water, but very sparingly soluble in alcohol.

Average dose: 0.005 gm. (5 mg. 1/10 grain).

SODII ARSENAS EXSICCATUS.—U. S.—This should contain not less than 98 per cent. of pure anhydrous Di-sodium-orthoarsenate. It occurs as an amorphous white powder, permanent in dry air; it is soluble in about three parts of water and is practically double the strength of the hydrous or crystalline preparation mentioned above.

Average dose: 0.003 gm. (3 mg. 1/20 grain).

SOLUTIONS OF ARSENIC.

While several of the preparations of arsenic appear to have been known and used, from time immemorial, as topical applications, the internal use of arsenic, in Europe, appears to date from the introduction of the solution of potassium arsenite, popularly known as Fowler's solution, about 1786. During the following decades a number of modifications of this solution of arsenic were suggested, by medical practitioners and apothecaries, all of which had, or were supposed to have, some distinctive properties. Of these almost innumerable solutions that have been proposed during the past century, the following are now official:

LIQUOR POTASSII ARSENITIS.—U. S.—The solution of potassium arsenite, universally known as Fowler's solution, as noted above, was the first of the several solutions to be used and is even now the most popular, being known in every civilized country in the world.

Solution of potassium arsenite contains the equivalent of 1 per cent. of arsenic trioxid, with a sufficient amount of the compound tincture of lavender to give the preparation a distinctive color and flavor.

Average dose: 0.2 c.c. (3 minims).

LIQUOR ACIDI ARSENOSI.—U. S.—This solution of arsenous acid contains the equivalent of 1 per cent. of arsenic trioxid, with 5 per cent. of diluted hydrochloric acid. This preparation was introduced, about the end of the eighteenth century, by Dr. DeValanquin, a native of Switzerland, who was practicing medicine in London; it was the first of the several acid preparations of arsenic.

Average dose: 0.2 c.c. (3 minims).

LIQUOR ARSENI ET HYDRARGYRI IODIDI.—U. S.—This preparation, more popularly known as Donovan's solution, contains 1 per cent. each of arsenous iodid and mercuric iodid.

Average dose: 0.1 c.c. (1½ minims).

LIQUOR SODII ARSENATIS.—U. S.—This solution of sodium arsenate, also known as Pearson's solution, contains 1 per cent. of exsiccated sodium arsenate.

Average dose: 0.2 c.c. (3 minims).

THERAPEUTICS OF ARSENIC.

While the probability of favorably influencing nutrition under certain conditions, by means of the action of arsenic on the capillaries can not be doubted, its therapeutic use for such purposes is empirical. The use of arsenic as a local caustic has a rational basis, but that will not be discussed here.

Arsenic has long been used in the treatment of a great variety of complaints in which anemia is a prominent symptom. Among these conditions is remittent fever, in which it is given in connection with quinin. It is preferable to give the two separately, arsenic being used in the form of the solution of potassium arsenite, which has a wide range of pharmaceutic incompatibility, being virtually an alkaline solution. This solution may be given in large doses—ten drops—gradually reduced, or in small doses rapidly increased until intestinal symptoms or swelling of the eyelids is seen, after which the drug is to be discontinued for a time, and then given in doses of from three to five drops three times a day. It is of importance that the dosage be watched so that no serious disturbance of digestion may occur. The frequently made suggestion to combine preparations of opium with the preparation of arsenic, so as to establish a tolerance for the latter, is one that is of doubtful utility in view of the fact that opium would be likely to mask the symptoms that occur as forerunners of more serious disturbances.

In chlorosis, arsenic seems to be useful in connection with iron. The combination most frequently prescribed is a pill of ferrous carbonate with arsenic trioxid. For this purpose the latter may be combined with the official pill of ferrous carbonate or with the mass of ferrous carbonate, as follows:

℞. Massæ ferri carbonatis .....3i 4|
Arseni trioxidi .....gr. i |05
M. et div in pil No. xl.
Sig.: One pill three or four times a day.

Pernicious anemia may show some temporary improvement under arsenical treatment, but the effect is not permanent.

It has been said that lymphosarcoma has shown improvement under its use, and the following conditions are enumerated among those in which it has been employed: Dyspepsia, diseases of the skin dependent on nutritional derangements, cachectic conditions resulting from diabetes, tuberculosis and a number of other more or less well-defined diseases.

The use of arsenic among veterinary surgeons for improving the appearance of horses by increasing the glossiness of the hair and adding to the fat under the skin is well known.

Phosphorus.

Phosphorus, in both inorganic and organic combination, is widely distributed in the body. Lecithin, a compound of cholin with phosphoric and fatty acids, occurs in nearly all living animal and vegetable tissues, while the nucleins, which are also rich in phosphorus, are likewise widely distributed.

While some observers have found that when lecithin or nuclein was added to the food of animals the latter grew faster than the controls which were not given these compounds, these results are not universally accepted as proving their value, and we have the classic research of Miescher, which proves that the animal organism is abundantly able to form those compounds from others normally existing in the body.

Miescher found that the mass of eggs in the salmon increased from 0.4 per cent. to from 19 to 27 per cent. of the total body weight during some months when the salmon took no food, while the muscles showed a corresponding loss in weight. Much more nuclein and lecithin are found in the eggs than previously existed in the muscle, which, however, are rich in other phosphoric-acid compounds, probably potassium salts which are loosely bound to the proteid.

Miescher concludes, and the evidence seems incontrovertible, that the newly formed combinations characteristic of the egg (including lecithin and nuclein) are formed by chemic action from the albumin, fat and phosphates of the muscle.

It will be readily seen how the makers of nostrums can use such results as those quoted in regard to the action of lecithin in causing an increase in the body weight, while the much more important and generally accepted results of Miescher are ignored.

Phosphorus and its preparations might be omitted without

serious detriment to these articles but for the fact that they have been so widely used and therefore require at least a passing notice, particularly as the toxicology of phosphorus is of considerable interest.

The heart suffers greater direct injury in phosphorus poisoning than does any other organ, while the accumulation of fat which it causes in the liver is apparently an infiltration, resulting from a peculiar disturbance of metabolism rather than the result of any change in the organ itself.

Hemorrhages may occur from degeneration of the capillary walls, while a similar effect on the mucous membranes of the stomach and intestine causes pain, vomiting and diarrhea.

Minute doses of phosphorus, long continued, induce a peculiar change in the growth of bones in the young, leading to the deposition of dense bone where cancellous is being formed, or the change of the latter, when already formed, into the compact form.

The phosphates are of the very greatest importance in the plant and animal bodies, but they occur so abundantly in the soil and in ordinary food that there is seldom any deficiency in the supply, and any want of them in the human body must be due to the inability to use that which is offered. Schmiedeberg calls attention to the formation of the egg shell as evidence of the great capacity of the animal organism to supply a special demand.

Sollmann states that there is absolutely no scientific foundation for the popular belief that the hypophosphites improve nutrition in anemia and beginning phthisis, while Cushny states that most reliable investigators deny that they have any other influence on nutrition and digestion than that of the better known and cheaper salts of lime, soda or iron and Schmiedeberg appears to think them entirely unworthy of notice.

Many clinicians, on the other hand, appear to have observed a distinct improvement in the appetite and digestion under the influence of the hypophosphites, but even if such is the case, there seems to be absolutely no reason or excuse for our employing such a high-priced, unsightly and unscientific preparation as the muddy-looking Fellow's syrup, since any competent pharmacist can make a more presentable and more satisfactory preparation at a very much smaller cost. In fact, if the hypophosphites do possess any distinct medicinal properties, the official preparations afford an ample choice for any condition or need.

OFFICIAL PREPARATIONS OF PHOSPHORUS.

PHOSPHORUS.—U. S.—A translucent, nearly colorless solid, having at ordinary temperatures about the consistency of beeswax.

Phosphorus is nearly insoluble in water, but is soluble in 350 parts of alcohol and in 50 parts of a fatty oil.

Average dose: 0.0005 gm. (0.5 mg. 1/128 grain).

PILULÆ PHOSPHORI.—U. S.—Each pill contains 0.0006 gm. (0.6 mg. 1/100 grain).

Average dose: 1 pill.

ACIDUM PHOSPHORICUM.—U. S.—This contains 85 per cent. of absolute orthophosphoric acid. It is usually prescribed as:

ACIDUM PHOSPHORIC DILUTUM.—U. S.—This contains 10 per cent. of absolute orthophosphoric acid.

Average dose: 2 c.c. (30 minims).

Phosphoric acid has many of the properties of other (inorganic) acids, and probably has no evident advantage over them as a tonic.

The official salts of phosphoric acid usually partake of the properties of the base rather than the acid, and need not be mentioned in this connection.

ACIDUM HYPOPHOSPHOROSUM.—U. S.—This contains 30 per cent. of absolute hypophosphorous acid and is chiefly used in preparing:

ACIDUM HYPOPHOSPHOROSUM DILUTUM.—U. S.—This contains 10 per cent. of absolute hypophosphorous acid.

Average dose: 0.5 c.c. (8 minims).

The official salts of hypophosphorous acid are:

CALCII HYPOPHOSPHIS.—U. S.

POTASSII HYPOPHOSPHIS.—U. S.

SODII HYPOPHOSPHIS.—U. S.

Average dose of any one of the above: 0.50 gm. (7½ grains).

Potassium hypophosphite is soluble in about 0.5 part of water and in 25 parts of alcohol, and calcium hypophosphite is soluble in about 7 parts of water, but is almost insoluble in alcohol.

In addition to the alkali hypophosphites, we also have official:

FERRI HYPOPHOSPHIS.—U. S.—and:

MANGANI HYPOPHOSPHIS.—U. S.

Average dose of either: 0.20 gm. (3 grains).

The ferric hypophosphite is soluble in 2,300 parts of water, but is much more readily soluble in solutions of hypophosphorous acid or of the alkali citrates. Manganese hypophosphite is soluble in about 7 parts of water.

SYRUPUS HYPOPHOSPHITUM.—U. S.—Syrup of hypophosphites contains in 100 c.c. 4.5 gm. of calcium hypophosphite and 1.5 gm. each of sodium and of potassium hypophosphites.

Average dose: 8 c.c. (2 fluidrachms).

SYRUPUS HYPOPHOSPHITUM COMPOSITUS.—U. S.—Compound syrup of hypophosphites contains, in each average dose (8 c.c. = 2 fluidrams) about 0.25 gm. (4 grains) of calcium hypophosphite, 0.12 gm. (2 grains) each of potassium hypophosphite and of sodium hypophosphite, 0.015 gm. (¼ grain) each of ferric hypophosphite and of manganese hypophosphite 0.008 gm. (⅛ grain) of quinin, 0.0008 gm. (1/80 grain) of strychnin with sodium citrate, hypophosphorous acid and syrup.

Average dose: 8 c.c. (2 fluidrams).

SYRUPUS CALCII LACTOPHOSPHATIS.—U. S.—This syrup contains in 100 c.c. about 3 gm. of calcium lactophosphate with free lactic and phosphoric acids.

Average dose: 8 c.c. (2 fluidrams).

The several salts of glycerophosphoric acid which are being advertised so extensively at the present time, as the active constituents of a number of nostrums, are as yet not official. It is quite probable, however, that longer experience will demonstrate that they have absolutely no advantages over the hypophosphites or the lactophosphates, and that their widespread use at present is but a passing fad.

THERAPEUTICS OF PHOSPHORUS AND ITS SALTS.

There is at least a rational basis for the use of phosphorus in rickets, osteomalacia and fracture of bones in which union fails to occur, since a deposition of lime salts in bone has been shown to result from its use.

It must not be given in doses large enough to cause serious gastrointestinal disturbance.

When we say that phosphorus or the hypophosphites are used empirically in the following conditions it is not to be understood that we recommend them, but merely that they may possibly be worthy of a trial. Thus some clinicians have used phosphorus in a variety of nervous disorders, and the hypophosphites are very often used as general tonics. The treatment of tuberculosis by the hypophosphites has no place in modern therapeutics.

Pure phosphorus is so slightly soluble that it was often dissolved in oil, but the phosphorated oil is no longer official. The pills of phosphorus, each containing 0.6 milligrams (1/100 grain) afford a very convenient form for administration.

The compound syrup of the hypophosphites, with its eleven ingredients, including water, affords an example of the concessions made, by the revision committee of the Pharmacopeia, to popular prejudice, and in time to come it will no doubt be relegated to its proper resting place with other polypharmaceal preparations of the centuries long passed.

The claim has been made that the hypophosphites are effective only when the chemically pure salts are used; this claim, however, seems scarcely credible in view of the fact that our ordinary food contains much greater quantities of just such salts as are said to render the hypophosphites useless.

From one to two teaspoonfuls of the compound syrup of the hypophosphites may be given before meals, as a stimulant to the appetite and digestion. Acids and acid fruits are to be avoided.

The following may be taken as a type formula for an extemporaneous preparation of the hypophosphites:

℞. Calcii hypophosphis		
Sodii hypophosphis		
Potassii hypophosphis, āā	℥i	4
Acidi hypophosphor	℥i	4
Aquæ dest	℥vi	200
Elixir q. s. ad	℥vi	200

M. et filtra. Sig.: One or two teaspoonsful three times a day, before eating.

The elixir in this prescription may be replaced by glycerin, or an aromatic water, the combination of the hypophosphites may be varied, within reasonable limits, and the hypophosphorous acid substituted by citric acid or by an alkali citrate. When desirable sufficient bitter may be added to make the medicine more palatable or to act as a bitter tonic. For this purpose the tincture of nux vomica, or one of the bitter alkaloids, may be added.

Cod-Liver Oil.

The consideration of cod-liver oil rightly belongs under the subject of dietetics, as nearly all pharmacologists are agreed that it is merely a food, but it is so frequently lauded as a medicine that some mention of it is necessary in this place.

On the discovery of traces of certain alkaloids or ptomains it was suggested that they possessed extraordinary value, but, as these substances are usually present in infinitesimally small quantities in good oil, and as there is no reason to suppose that they possess any beneficial effect whatsoever, it cannot be said that the so-called fat free or tasteless cod-liver oils can, in any sense of the word, represent cod-liver oil.

The crude dark-colored oil often contains a much larger proportion of free fatty acids than the white does, and it should, therefore, be more readily emulsified in the intestine and absorbed, but its disagreeable odor and taste render it peculiarly disgusting to all patients with delicate stomachs. Small doses of cod-liver oil can usually be borne, especially if it be given in the form of an emulsion, but even this is not always tolerated.

OFFICIAL PREPARATIONS OF COD LIVER OIL.

OLEUM MORRHUÆ.—U. S.—This preparation is official in some of the foreign pharmacopeias as Oleum Jecoris Aselli, a name that may be useful on occasions. Cod-liver oil is a fixed oil obtained from the fresh livers of *Gadus morrhuæ* and of other species of *Gadus*.

Average dose: 15 c.c. (4 fluidrams).

EMULSIUM OLEI MORRHUÆ.—U. S.—The emulsion of cod liver contains 50 per cent. of the oil, with mucilage and syrup, and is flavored with oil of gaultheria.

Average dose: 8 c.c. (2 fluidrams).

EMULSIUM OLEI MORRHUÆ CUM HYPOPHOSPHITIBUS.—U. S. This contains 50 per cent. of cod liver oil, 1 per cent. of calcium hypophosphite, and 0.5 per cent. each of potassium hypophosphite and of sodium hypophosphite. It is flavored with oil of gaultheria.

Average dose: 8 c.c. (2 fluidrams).

Cod-liver oil is often useful in anemias due to faulty nutrition and in the general debility which so often precedes tuberculosis. For this reason, perhaps, it has acquired a particular reputation in the treatment of tuberculosis. It can have no specific action on the bacillus of tuberculosis, nor on the course of the disease, except in so far as it is a readily assimilable food.

It is often found to be useful in rickets. The pure oil, the emulsion, or the emulsion with hypophosphites may be used, the dose to be regulated according to the capacity for assimilation of the individual case.

It may be added here that the petroleum oils alone, or in the form of emulsions, are wholly devoid of nutrient properties. They are mineral oils, and, therefore, non-saponifiable and can take no part in animal nutrition.

The Automobile's Advantages to the country physician are so manifest that I look forward, writes a Toronto physician, during the coming season to a very large increase in the motor ranks by members of the profession throughout the province of Ontario.

Clinical Reports

EXTRAGENITAL AND URETHRAL CHANCRE.

REPORT OF FIVE CASES, INCLUDING ONE WITH MULTIPLE LESIONS OF THE BREAST.*

FRANK CROZER KNOWLES, M.D.
PHILADELPHIA.

There is no phenomenon of syphilis more interesting to the general clinician than its inception in the one typical initial lesion. When this lesion has an unusual characteristic, such as prolonged incubation, extragenital location, unaccustomed appearance, particularly if of a multiform variety, our study is of even greater interest.

Before the description of these cases it might be well to give a few general statistics on extragenital and urethral chancre, in so far as they bear on this paper. Montgomery[1] states that 5.5 per cent. of his cases of syphilis were of extragenital origin, or 67 out of a total of 1,217. Bulkley[2] of New York gives the same percentage, 5.5 per cent., or 113 extragenital in 2,000 cases.

Fournier's[3] statistics show that 6.33 per cent. of his total cases of chancre were of extragenital location. While out of 887 cases of primary syphilis occurring among women in his private practice,[4] 45, or 5.07 per cent., of the initial lesions were extragenitally situated.

All authorities agree that the major number of extragenital lesions occur on the cephalic region, chiefly in close proximity to the mouth. According to the statistics collated by Poray Koschitz,[5] 632 out of 852 primary extragenital lesions occurred on the head, or practically 75 per cent., and of 29 cases of the above authority in 9, or 31 per cent., the lesions were on the lips. Montgomery[6] records slightly over 42 per cent. of his extragenital cases as occurring on the lips. According to Bulkley's[2] statistics, a little over 13 per cent. of his extragenital chancres were located on the finger. Multiple lesions may occur on any part of the body, most frequently on the genitaliæ and breast. According to Taylor,[7] in fully one-third of all cases of syphilis occurring in women the lesions are multiple. Fournier[8] states that 39 out of every 100 cases of primary syphilis of the breast show multiple lesions.

According to Dr. Dimey,[9] in 206 cases of initial lesions of the breasts, one breast was affected in 132 cases, while both were involved in 74. In this last reference, which Prince A. Morrow kindly furnished me from his "System of Genito-Urinary Diseases Syphilology and Dermatology," Jullien[10] has tabulated 1,773 cases of primary specific lesions compiled from the statistics of Bassereau, Fournier, Clerc and Léon le Fort. Of these chancres 89 were located at the meatus, while 17, or less than 1 per cent., were in the urethra proper. The few statistics, quoted from nine authorities both in

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* Read before the Philadelphia County Medical Society.

1. Montgomery: The Journal of Cutaneous Diseases, August, 1905, p. 346.
2. Bulkley: "Syphilis of the Innocent," p. 36, Alverenza prize essay.
3. Fournier: "Les Chancres Extra-Génitaux," Paris, 1897, p. 5.
4. Fournier: Annales de Dermatol et de Syphilographie, 1887, vol. viii, No. 12, p. 757.
5. Poray Koschitz: Arch. f. Derm. u. Syph., 1890, No. 6, p. 928.
6. Montgomery: The Journal of Cutaneous Diseases, August, 1905, p. 352.
7. Robert Taylor: "Practical Treatise on Genito-Urinary and Venereal Diseases and Syphilis," 3d edition, p. 514.
8. Fournier: "Les Chancres Extra-Genitaux." Paris, 1897, p. 358.
9. Dimey: "Etude Sur le Chancre Syphilique du Sein," Thèse de Paris, 1891.
10. Jullien: "Traite Pratique des Maladies Vénériennes" 2d edition, 1886, p. 572.

this and foreign countries, show the comparative frequency of unusually located initial lesions and teaches us to be constantly watchful that no mistake be made.

Of the following cases two were seen in the Dermatologic Clinic of Dr. Chas. N. Davis at the Pennsylvania Hospital, one in the Genitourinary Clinic of Dr. H. M. Christian at the Polyclinic Hospital, one in the Dermatologic Clinic of Dr. M. B. Hartzell at the University of Pennsylvania Hospital, and one in my own practice.

CASE 1.—Walter T., mulatto, age 26, clerk, born in Philadelphia. First seen in Surgical Dispensary of Pennsylvania Hospital on June 20, 1904. At that time he had a quarter-dollar sized, elevated, sharply marginate, fungating, crusted, slightly indurated lesion on posterior surface of right index finger, over phalangeal-metacarpal articulation. This lesion was of six days' duration. No glandular or other specific symptoms were present. The treatment consisted of mild, local, antiseptic applications. The induration of this lesion was more marked on each successive visit. On July 17 the patient returned after an absence of ten days, with a typical roseolar eruption, general glandular enlargement, pharyngitis and pains in body. The patient had been referred to the Cutaneous Clinic, after a few dressings in the surgical dispensary, where the following history was discovered: On April 18 this man engaged in a fight, hitting his opponent in the teeth, causing an abrasion at the site of the present lesion. This abrasion subsequently healed, but on June 14, or eight weeks following this injury, the present lesion appeared. The secondaries appeared precociously in four and a half weeks.

CASE 2.—C. D., an Italian girl, aged 22, married, came to the Cutaneous Clinic at the Pennsylvania Hospital on May 1, 1905, showing the following: Just below left nipple, in areolar formed by glands of Montgomery, were two dime-sized, sharply marginate, raised, markedly indurated, crusted lesions, separated by about one inch of sound skin. On the right breast one other lesion of the same character and location was seen. The duration was fifteen days. The only subjective sign was pain all over the body. No objective sign of syphilis was present. The patient was seen three times during the next ten days with no new developments except an increase in the button-like induration of the lesions and in severity of muscular and osseous pain. After an interval of almost three weeks the patient returned on June 27 with a macular eruption of one week's duration, covering the entire body and face; numerous mucous patches of lips, tongue, soft palate and tonsils were present, also general glandular enlargement and pains in entire body. Unfortunately no history was obtainable in this case. Her only child, a girl of 11 months, was apparently in perfect health, although still breast-fed.

CASE 3.—F. P., male, aged 30, came to my office May 29, 1905, complaining of a urethral discharge of ten days' duration. On examination an irreducible phimosis was found, also a profuse muco-purulent discharge. Of still greater interest, on palpating the penis, a hazelnut sized, firmly indurated, button-like mass was found one and a half inches behind the meatus, on the roof of the urethra and partially surrounding the same, this latter mass being of three weeks' duration. After cleansing the foreskin with potassium permanganate solution, the two glass test was tried, the first glass only showing cloudy urine with shreds. The only subjective sign was bilateral enlargement of inguinal glands. No primary incubation period could be determined, for the man was extremely promiscuous in his intercourse. On June 19 the patient again appeared in my office, after an absence of three weeks, with a profuse, ham colored, multiform eruption, chiefly small, flat, papular in type, general glandular enlargement, husky voice, pharyngitis, slight thinning of hair, and generalized pains in bones and joints. These secondary symptoms appeared ten days before this present visit. No microscopic examination having been made for the diplococcus of Neisser, a superadded gonorrhea can not be positively stated.

CASE 4.—S. M., male, aged 22, came to Genitourinary Clinic at the Polyclinic Hospital on Aug. 15, 1905, with a dime sized, sharply marginate, crusted, slightly raised indurated lesion, slightly to left of median line of lower lip. The duration was ten days. The incubation period was indefinite. There were no other signs of beginning syphilis. On September 12 the patient returned, after an absence of five weeks, with a marked pharyngitis, the post-cervical, submaxillary and inguinal glands were enlarged, and a faint macular eruption of one day's duration was on chest, abdomen and back. The generalized eruption in this case followed a secondary incubation period of just six weeks.

CASE 5.—Charles T., aged 42, blacksmith. This patient first came to the Cutaneous Clinic of the University of Pennsylvania Hospital on Feb. 23, 1906, complaining of a large swelling of the lower lip. On the vermilion of the lower lip just to the left of the median line, a quarter-dollar sized densely indurated, slightly crusted, raised, button-like lesion was found. The post-cervical and submaxillary glands were enlarged and an extragenital chancre was diagnosed. The man stated he had no eruption on the body. As in all cases, not trusting to the patient's own observation, we made the man disrobe. One glance at the patient's body was sufficient to see a generalized macular eruption over arms, legs, trunk, and a few lesions of the same character on the forehead. The throat showed a pharyngitis, with small mucous patches of post-pharyngeal arches. The exact primary or secondary incubation period, or the duration of the initial lesion and secondary eruption could not be determined. The patient stated that the lesion had appeared on the lip three weeks ago; probably twice that length of time would be nearer the truth. The macular eruption could have had a duration of but a few days. This man, being separated from his wife, was in more danger of being exposed to contagion.

Only those cases have been reported in this series in which the diagnosis was proved by the appearance of the secondary eruption and concomitant signs of syphilis.

During this same period three other cases were seen, in each of which the provisional diagnosis of extragenital chancre was made, two of these cases having indurated, single, lesions on the fingers and in one case on the upper lip. Unfortunately, as each of these patients made but the one visit, our provisional diagnosis could not be conclusively proved.

332 South Seventeenth Street.

A CASE OF PRIMARY SYPHILITIC INFECTION IN THE NOSE.*

JAMES T. CAMPBELL, M.D.

Professor of Otology, Rhinology and Laryngology in the Postgraduate Medical School.

CHICAGO.

Chancre of the nose is one of the rarest of lesions. Krefting[1] gives statistics of 2,916 cases of chancres, of which 539 were instances of extragenital infection, and Salsotto[2] records 201 cases of extragenital chancre with no case of primary nasal infection. Bulkley[3] gives a table of 9,058 cases of extragenital chancre in which primary infection of the nose occurred ninety-five times. Bosworth[4] states that in 2,244 cases of chancre observed by Bossereau, Clerq, Lefort, Fornier and Ricord, the primary lesion was found twice in the nose. Le Bart[5] reports thirty-seven cases of primary nasal chancre, of which twenty-one were external and sixteen within the nostril.

The earliest recorded case I can find is that of Mc-

*Read before the Chicago Laryngological and Otological Society.

1. Archiv. f. Derm. u. Syph., 1894, vol. xxvi, p. 167.
2. Sifilomi Extragenatali et Epidermie di Sifilide, Brochure, Turin, 1892.
3. Syphilis in the Innocent.
4. A Treatment on the Nose and Throat, 1889.
5. These dé Paris, 1894.

Carthy.[6] Spencer Watson[7] reported a case of a nurse in attendance on a woman who gave birth to a syphilitic child. The sore could not be distinctly seen, on account of the swelling within the nostril. Severe pain, fever and mental depression was followed by the ordinary symptoms of secondary syphilis. The vehicle of infection in all probability, was the patient's own finger.

Intranasal inoculations occur most frequently in the lower and anterior part of the nasal septum, next in frequency on the ala, and then, as in the case I am about to report, on the inferior turbinated body. The location modifies the chancre's appearance. On the septum it displays a flat, reddish or greenish, fungiform mass with indurated circumference. The surrounding mucous membrane is, to a greater or less degree, swollen, and there flows from the ofttimes stenosed nostril, a bloody, fetid discharge. When the ala is involved the infiltration and induration often causes it to be of a cartilaginous consistency. When the inferior turbinated is primarily inoculated, the appearance resembles, mostly, a severe localized influenza, or a fibrinous or diphtheritic rhinitis. Usually the submaxillary, sublingual and preauricular glands early show marked indolent swelling.

Characteristic of this infection is an aggravated general febrile disturbance, malaise and depression of spirits. The chancre may be mistaken for an abscess of, or injury to, the septum; for a furuncle, to which for a time, it is not dissimilar; for vaccine inoculation; for tubercular ulceration; for malignant disease.

The existence of an ulcer in the nose with a peculiar hard base and granular surface, bleeding easily on touch and of limited extent, would suggest tuberculosis, malignant disease or syphilis. Tubercular ulceration occurs only as secondary to a pulmonary deposit and examination of the discharge would show characteristic bacilli. In malignant disease glandular enlargement is a late development, and the progress of the disease is liable to be accompanied by profuse epistaxes. In syphilis the chancre is followed shortly by characteristic secondary symptoms.

CASE REPORT.

History.—On Oct. 19, 1905, a surgeon in perfect health circumcised a patient, on whose prepuce was a large indurated chancre.

On December 16, nearly two months later, he first noticed stuffiness of the right nostril, and headache from brow across vertex to occiput. This was accompanied by malaise, anorexia, chilly sensations and constipation, a condition from which he never before had suffered. For a period of two weeks his temperature ranged from 100 to 100.2 F. He had worked very hard for a few weeks prior to December 16, and he attributed his condition to overwork and a grip-like attack. During Christmas week he visited his old home, but the rest did not improve his condition.

Examination.—I first saw him on Dec. 28, 1905. At that time I made the notation, "Superficial necrosis of the mucous membrane covering the anterior end of the right inferior turbinate body; the fibrinous membrane, when raised, revealed an ulcerating bleeding surface." Neither suprarenalin 1 to 1,000 nor 10 per cent. cocain solution caused any appreciable blanching or shrinking of the turbinated body. Lacrimation was present on the right side and one gland below the angle of the right jaw was enlarged and tender.

The condition resembled fibrinous rhinitis, but it was limited to the inferior turbinated body and there was no ichorous discharge from the nostril. The swelling practically occluded the nostril, which is narrow on account of septal deviation, the result of traumatism in childhood.

The treatment employed was a cleansing alkaline spray followed by sprays of peroxid of hydrogen and lime water.

Course of Disease.—On Jan. 8, 1906, eighty days after the probable inoculation, a macular rash appeared on the abdomen. Four days later, when I was shown the rash, I made a positive diagnosis of syphilis and was confirmed in this by Dr. Joseph Zeisler and Dr. T. Melville Hardie. The "leanham" macular and papular rash, more marked on his chest and abdomen, covered practically the whole body with the exception of the exposed portions of head and hands. There were papules at the base of the uvula, but no soreness or congestion of the fauces and no glandular enlargement or soreness excepting the before-mentioned submaxillary gland. Disappearance of the fibrinous membrane and healing of the ulceration took place under the simple sprays, before constitutional symptoms appeared. Coincident with the appearance of the rash, the headache ceased and the general feeling of well-being began.

On diagnosis of syphilis being made, inunctions of mercurial ointment, one dram, at bedtime were begun and after six rubbings all evidence of the disease had disappeared.

6. These dé Paris, 1844.
7. *Medical Times and Gazette*, 1881, vol. 1, p. 428.

A CASE OF MULTIPLE CHANCRES.

S. R. MALLORY KENNEDY, M.D., A.A.S.
Public Health and Marine-Hospital Service.
PENSACOLA, FLA.

Cases of multiple chancres are rare. Chiefly because of their infrequency they are often unrecognized, and so the report of a single case, though adding nothing to the present-day knowledge of the subject, may call attention to the existence of a condition which might otherwise be overlooked. It is for this reason that I report the first case that, to my knowledge, has been treated in this section of the country.

Patient.—J. I. C., aged 22, presented a good family history.

History.—He had never been sick in his life except for an acne which bothered him but little, and for which he had done nothing. He first came under my care in August, 1904, when I treated him for a chronic form of gonorrhea. This, though stubborn, yielded after a time and the patient, after many tests, was discharged as cured. I did not see him again until August, 1905.

Examination.—On making an examination I found a purulent discharge about the urinary meatus, and a single, enlarged, painless, indurated, freely movable gland in the left inguinal region. The discharge, however, did not come from the meatus, but from beneath the prepuce, which was slightly swollen, tending to phimosis. On inserting a small, blunt probe several rough surfaces could be detected, and on questioning the patient I was somewhat surprised to learn that he had not had sexual intercourse for more than a month before noticing the discharge.

Treatment.—Realizing that with the existing phimosis local treatment would amount to little or nothing, I advised an incision through the dorsum of the prepuce to expose the glans and to aid in making topical applications. He consented, and on the following day, with local anesthesia—ethyl chlorid and a 2 per cent. solution of cocain—the incision was made, disclosing nine ulcers. Each lesion presented a typical picture. Their edges were sloping (cup shaped), they had a firm, cartilaginous, or woody feel. Their bases were covered with a thin, scanty, sero-purulent discharge which had no offensive odor. Each lesion was fully developed, separate and distinct. There was no tendency whatever to coalesce.

I was convinced that the picture before me was one of multiple chancres, and, realizing that all nine could be gotten rid of by a circumcision (all being located on the glandular surface of the prepuce), the primary incision was continued under cocain and a circumcision was done. The operation was followed by some little swelling and pain, but no more than would ordinarily occur after the performance of this operation on a perfectly healthy penis, the wound healing by first intention.

Bacteriologic Examination.—Smears from the nine lesions were made and examined for the bacillus of chancroid (bacillus of Ducrey) with negative results. Further tests were made

to isolate the bacillus in culture tubes containing fresh blood, after the method of James Homer Wright of Harvard University, with negative results.

Subsequent History.—The patient was told of my suspicions and was instructed to report at my office for inspection when any of the lesions of the "active period," which were thoroughly explained to him, might put in an appearance. This he promised to do, but was compelled to leave the city and I did not see him again until Jan. 8, 1906, when he came to my office, not because he felt that his health was impaired, for he stated that he had not had an ache nor a pain since I had seen him last, but because he had returned to the city "and wanted me to examine him to satisfy myself that he was all right."

The skin presented nothing suspicious, the acne which he had had for the past five or six years was no better, nor was it any worse. There was no other form of eruption present. I found, however, that the post-occipital glands on both sides were much enlarged, as were also the cervical, axillary and inguinal glands. On examining the throat I found a bald patch in the roof of the mouth and two typical patches on both tonsils. They were oval, gray in color, moist, and looking as though silver nitrate had been applied; the whole faucial surface was engorged.

Not until I told the patient what I had discovered did he admit that his throat had bothered him for a day or two. I told him that in my opinion he had syphilis. Although having been acquainted at the time of performing the circumcision with my suspicions, the fact that he had suffered from no prodromes, or eruption (which he had been looking for) did not help to lessen the shock caused by my positive diagnosis.

Having to go to New Orleans he urged me to accompany him in order that I might give a detailed account of the case to Dr. Rudolph Matas, in whom he has the utmost confidence. This I willingly agreed to do. Dr. Matas listened attentively to the history, made a careful examination, and pronounced the case syphilis beyond a doubt. He was impressed, as I had been, with the mildness of the case, and attributed it to the fact that in performing the circumcision, nine points of infection were removed at once.

I believe, of course, that the chancre is a local manifestation of a constitutional disease, and that when it appears a large amount of the poison has already entered the system. This in no way opposes the duality theory, as I do not contend that the removal of the chancres would prevent chancroid from forming, for I believe, with Fournier, Cooper, von Zeissl, Taylor, Lydston and a host of others, that the poisons are not one and the same; nor do I believe for one instant that the removal of chancres will prevent the appearance of the active period (secondary stage) or the period of sequelæ, but I do contend that in this particular case their immediate and complete removal mitigated the attack.

In his excellent article on syphilis Lydston has this to say in favor of excision:

> The excision of the chancre should be performed only after the induration has matured, that is, after it has attained full development, and remained in *statu quo* for some days, otherwise induration is apt to recur in the edges of the wound. By the excision we remove a constant focus of infection that is present so long as the induration lasts. We at once remove a large mass of syphilized cells that would otherwise only be removed by the slower process of fatty degeneration, absorption and elimination. We obviate the possibility of transmission of the disease to others by means of the initial lesion (a point sometimes of great importance in married persons); we lessen the danger of suppurating bubo in case the chancre should become inflamed or pus-infected; we remove a constant source of irritation and lessen the danger of phagedena and inflammation that might disable the patient.

I return to the narration of the case:

Treatment.—Principally for its rapidity of action and on account of the existing acne, I used the inunction plan of treatment, rubbing into the patient one dram of mercurial ointment in one dram of lanolin every twenty-four hours, followed the next night by a warm bath with German green soap.

Dr. Matas suggested touching the mucus patches with pure carbolic acid, followed with alcohol or with a mixture of carbolic acid and iodin in equal parts. I used the pure carbolic and in eleven days from the time I started to make these applications not a trace of the patches on the tonsils could be seen. The bald patch in the roof of the mouth did not take kindly to this treatment and I changed to lunar caustic, putting the patient on a short, brisk course of potassium iodid, with good results. The iodid, however, made the acne worse, and after a week I stopped it and relied entirely on the inunction and the lunar caustic, with the result that at the present writing there is but one-sixteenth of an inch to heal. As a mouth wash and gargle the patient is using equal parts of an alkaline solution and a solution of peroxid of hydrogen five or six times a day; he also uses a chlorate of potash tooth paste after each meal.

He objected to the use of the curette, the best treatment I know of for acne; so I am using a sulphur ointment, and if the acne ever gets better the patient will wear a mercurialized shirt; the inunctions will be discontinued and the patient put on granules of protoiodid of mercury (each 0.01 gm.).

The plan I follow in giving these granules differs somewhat from the ordinary in that I do not reach the full physiologic action and then cut the dose in half, but, instead, when the patient reaches the limit, he is instructed to reduce the dose one granule a day until he has reached the original starting point, when he commences to increase the dose as before. It is astonishing how nicely this method agrees with the majority of patients. I have one who, following these directions, worked up to thirty-two granules a day before beginning to reduce his dose, and this without disturbing his digestion in the least.

Unless there are contraindications, I generally have my patients follow this plan of treatment for one year, when they are instructed to skip a month, taking a course of potassium iodid in the off month. In this way any mercury that is stored up in the tissues will be liberated, rendered active and eliminated. It is well to bear in mind the possibility of the injurious effects produced by the cumulative action of the drug.[1] I do not give the iodin simply and solely for its alterative effect, but because it is an established fact that the iodids alone are capable of effecting a cure in syphilis. That this view is correct is shown by the beneficial effects produced by potassium iodid in cases of late syphilis in which mercury has never been administered. Hassing[2] reports seventy cases of syphilis in which the patients were cured by potassium iodid alone without mercury at any stage. These experiments have since been frequently repeated by various observers, and by myself, with like results.

At the end of the second year the patient is again given a course of mercury for six months, during which time he again alternates; mercury one month, potassium iodid the next. Then I let him rest and watch for results. If all goes well, and all should go well if he has followed out directions, I discharge him, feeling reasonably sure that he can marry and beget healthy children. It goes without saying that the physician can not effect a cure alone; the patient must do his share, and the best advice that can be given to a syphilitic after he has been put in possession of all the facts concerned in his case is this: "To thine own self be true."

1. The text-books are notoriously deficient regarding the physiologic action of this drug and for the benefit of those who are looking for cause and effect and not a mere history of symptoms following large or small doses of mercury, I take pleasure in referring to the recent papers of S. V. Clevenger on the subject.
2. British and Foreign Medical Review, October, 1845.

A CASE OF CESAREAN SECTION IN ECLAMPSIA.

WILLARD SMITH, M.S., M.D.
LA GRANDE, ORE.

In October, 1903, I was called to attend Mrs. J. W., who had typhoid fever and was about four months' pregnant. She aborted in the course of her fever and had considerable difficulty owing to the small size of her pelvis. I lost sight of her after her recovery until September, 1904, when I was called to treat her for hydrorrhea gravidarum, which had been present for about a month. She expected confinement September 10, but as she did not enter into labor at that time I waited until September 23 and then induced labor. My reason for doing this was that there was unmistakable evidence that she had exceeded her full term and the delay seemed to be due to deformity of the pelvis. I measured her pelvis and found the internal conjugate to be only two and one-eighth inches. After long effort to secure delivery without forceps, I applied them and with great difficulty succeeded in delivering her of a six-pound child. The child was delivered alive, but was so crushed and mutilated in the process that it died after six hours. Again I lost sight of the patient until in April, 1905, she came to me and asked me if there was any way by which she could have a baby. She said that she was very anxious to become a mother and was willing to undergo almost anything in order to do so. I told her that there was only one way—Cesarean section—and explained to her what it meant and the danger of it. She asked me if I would do this operation for her if she should become pregnant. I told her that she had better not attempt it, but if I were ever again called on to attend her in labor I certainly would not attempt to deliver her in any other way. About the last of June she again appeared and informed me that she believed herself pregnant, having last menstruated on May 7, and further said that she had become pregnant with the definite intention of having Cesarean section done. I accepted the situation and instructed her to report every ten days, which she did faithfully up to December 8, the date of her last visit to my office. At about two months she had slight albuminuria, which disappeared under treatment. Otherwise she showed no abnormal signs.

Family History.—The patient, aged 21, was the eldest of a family of eleven children. Her mother had also had seven miscarriages. Her father comes of a rachitic family and shows many signs of rickets and has had a chronic leg ulcer since he was 9 years of age. One of her mother's sisters has lost seven children at birth owing to a contracted pelvis.

History of this Pregnancy.—On December 14 the patient began to act queerly, and she afterward stated that she had no recollection of any of the events succeeding that date. She became progressively duller and more apathetic until the evening of December 17, when she began having labor pains prematurely. The pains became more frequent and were interspersed with convulsions of increasing frequency and severity until 2 a. m. on December 18, when I was called to see her.

Treatment.—On examining her I found a considerable degree of dilatation. I gave her morphin sulphate ⅜ gr., hypodermatically, and removed her to the hospital. The morphin caused a temporary cessation of both pains and convulsions. Preparation was made to do whatever might prove necessary, and the advice and aid of Drs. Hall, Bacon and Hawke were secured. At 9 a. m. she began having pains again and soon had a very severe convulsion. The urine showed a large quantity of albumin. Casarean section was decided on and was at once performed, the technic of the modern Porro operation being followed. Three pints of normal saline solution were left in the abdomen, two pints were given subcutaneously under the breasts, and three pints were introduced into the rectum. She was at once placed in a hot pack, which was continued for thirty-six hours, and as vomiting did not occur, she was encouraged to drink water freely, taking almost three gallons by mouth in thirty-six hours.

Postoperative History.—On the morning of December 19 she had three hard convulsions. The administration of veratrum viride was begun at this time, and three pints more of normal saline solution were infused under the breasts. The veratrum was given in variable hourly doses so as to keep the pulse rate below eighty, and this was continued for three days, after which digitalis was used in sufficient dose to produce the same effect on the pulse, this being continued for almost a week until the pulse remained at this point unaided. Magnesium sulphate was given in such doses that prolonged purgation was maintained. No further convulsions occurred, the albumin disappeared from the urine in five days, the further course of the case was uneventful, and the patient was able to leave the hospital at the end of three weeks from the operation.

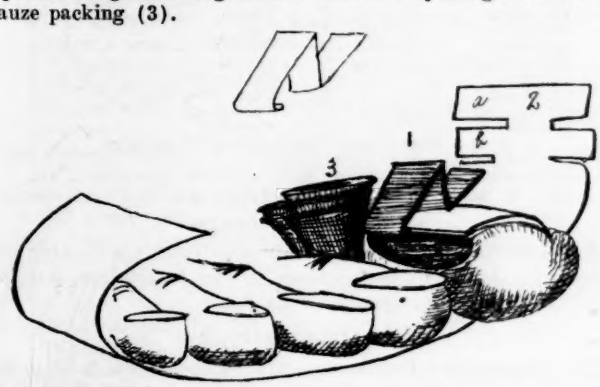
Fate of Child.—The child lived for two and a half hours and died from convulsions which resembled those from which the mother had suffered. It is my belief that the death of the child was caused more from toxic material which it had received from the mother than from its prematurity.

New Instruments

LEVER FOR INGROWING TOENAIL.

J. T. LELAND, M.D.
HERMAN, MINN.

The lever here illustrated has given satisfaction in the treatment of ingrowing toe-nail. It consists of a piece of galvanized tin 1½ in. long and ¼ in. wide, bent as illustrated (1). The edge is inserted under the nail and held by a piece of adhesive plaster (2), cut transversely into arms *a* and *b*. Arms marked *a* are made fast to the nail to prevent slipping. Arms *b* are attached to arm of lever. The plaster is then carried round the foot while the desired downward pressure is being made. To separate the granulating surface from the adjoining toe I insert gauze packing (3).



The advantages of my lever are:

1. The nail is permitted to grow.
2. The lever can be applied to any nail, regardless of whatever mutilation it may have received.
3. No packing under the nail is necessary.

Action of X-Rays on the Blood.—Gramegna and Quadrone (*Arch. Gén. de Méd.*), have studied the effect of the *x*-rays on the blood in rabbits and guinea-pigs, and found marked changes in the white corpuscles and diminution of their number, together with increased coagulability of the blood. The red corpuscles were less affected, the chief change observed being a diminution of resistance. The hemoglobin ratio was very little affected. The practical suggestion would be that of the possible utlility of the *x*-rays in increasing the density and coagulability of the blood in hemophilia and other hemorrhagic conditions.

THE BOSTON SESSION

American Medical Association, Fifty-Seventh Annual Session, Boston, Mass., June 5 to 8, 1906.

OFFICIAL CALL

ANNOUNCEMENT OF THE FIFTY-SEVENTH ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION, TO BE HELD AT BOSTON, JUNE 5-8, 1906.

CHICAGO, April 14, 1906.

To the Officers and Members of the Constituent State and Territorial Associations of the American Medical Association:

The fifty-seventh annual session of the American Medical Association will be held at Boston, on Tuesday, Wednesday, Thursday and Friday, June 5, 6, 7 and 8, 1906.

HOUSE OF DELEGATES.

The House of Delegates of the American Medical Association will convene in the Boston Medical Library, Boston, at 10 a. m., on Monday, June 4, 1906.

The following is a list of the constituent associations and the number of delegates to which each is entitled:

State.	Delegates.	State.	Delegates.
Alabama	3	Montana	1
Arizona	1	Nebraska	2
Arkansas	2	Nevada	1
California	4	New Hampshire	1
Colorado	2	New Jersey	3
Connecticut	2	New Mexico	1
Delaware	1	New York	..
Dist. of Columbia	1	North Carolina	2
Florida	1	North Dakota	1
Georgia	2	Ohio	5
Hawaii	1	Oklahoma	1
Idaho	1	Oregon	1
Illinois	8	Philippine Islands	1
Indian Territory	1	Pennsylvania	8
Indiana	4	Rhode Island	1
Iowa	4	South Carolina	1
Kansas	2	South Dakota	1
Kentucky	3	Tennessee	3
Louisiana	2	Texas	5
Maine	1	Utah	1
Maryland	2	Vermont	1
Massachusetts	6	Virginia	3
Michigan	4	Washington	1
Minnesota	2	West Virginia	2
Mississippi	2	Wisconsin	3
Missouri	3	Wyoming	1
U. S. Public Health and Marine-Hospital Service			1
Medical Department, U. S. Army			1
Medical Department, U. S. Navy			1
Each of the scientific sections, one delegate			12

FIRST GENERAL MEETING.

The first General Meeting, which constitutes the opening exercises of the scientific functions of the Association, will be held at 10:30 a. m., Tuesday, June 5.

REGISTRATION DEPARTMENT.

The Registration Department will be open from 8:30 a. m. until 5 p. m., on Monday, Tuesday, Wednesday and Thursday, June 4, 5, 6 and 7, and from 9 to 10 a. m., on Friday, June 8.

Those who desire to join the Association at the annual session should bring certificates of membership in their state associations.

L. S. MCMURTRY, President.

GEORGE H. SIMMONS, Secretary.

PRELIMINARY PROGRAMS OF SECTIONS.

The Papers to Be Read at Boston—Announcement About the Official Program.

The following is a partial list of titles of papers to be read before the various sections at Boston. The order here is not necessarily the order which will be followed in the Official Program. This Official Program will be similar to those issued in previous years and will contain the final program of each section, with abstracts of the papers, lists of committees, programs of General Meetings and House of Delegates, lists of entertainments, map of Boston, etc. To prevent misunderstandings and to protect the interests of advertisers, etc., it is here announced that this Official Program will contain no advertisements. It is copyrighted by the American Medical Association and will not be distributed before the session. A copy will be given to each member on registration.

SECTION ON PRACTICE OF MEDICINE.

CHAIRMAN, HERBERT C. MOFFITT, SAN FRANCISCO; SECRETARY, JOSEPH L. MILLER, 100 STATE STREET, CHICAGO.

Recent Advances in Physiology of Circulation. Joseph Erlanger, Baltimore.
True and False Angina. James M. Anders, Philadelphia.
The Diagnosis and Treatment of Some Unusual Heart Affections. H. A. Hare, Philadelphia.
Mutual Relations of Heart and Kidney. N. B. Potter, New York.
The Diagnosis of Heart Insufficiency Apart from Valvular Disease. R. H. Babcock, Chicago.
Pericarditis. N. S. Davis, Chicago.
A Study of the Heart in Chorea. W. S. Thayer, Baltimore.
Address: Dr. Krehl, Strassburg, Germany.

Symposium on Joints.

Acute and Chronic Articular Rheumatism. Lewis Conner, New York.
Gonorrheal Arthritis and Gonorrheal Septicemia. J. A. Witherspoon, Nashville.
Differential Diagnosis of Rheumatoid Affections. J. B. Herrick, Chicago.
Joint Affections in Nervous Disease. L. F. Barker, Baltimore.
The Treatment of Chronic Joint Affections. Locke and Osgood, Boston.

Symposium with Surgical Section.

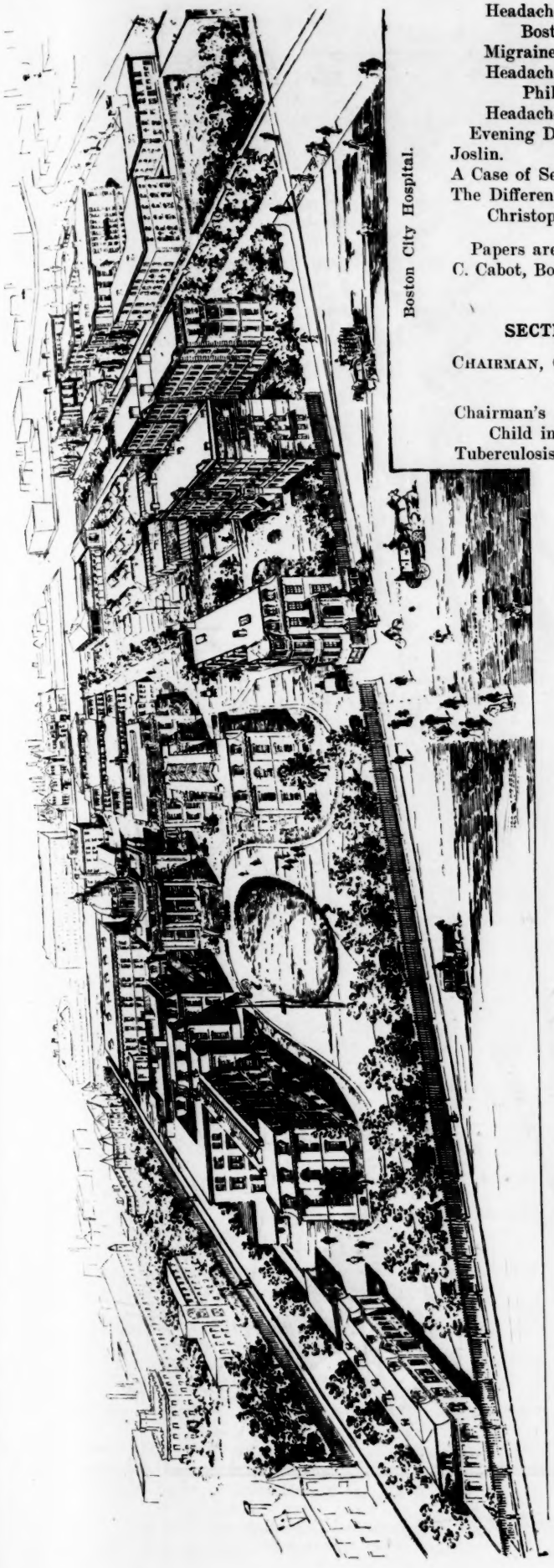
Etiology and Diagnosis of Ulcer. Frank Billings, Chicago.
Treatment of Ulcer. Alexander Lambert, New York City.
Demonstration of Ulcer Cases Treated Medically or Surgically in Massachusetts General Hospital. H. F. Hewes, Boston.
When Do the Gastric and Duodenal Ulcers Require Surgical Treatment and What Procedures Are Advisable? W. L. Rodman, Philadelphia.
The Results of the Surgical Treatment of Gastric and Duodenal Ulcers. W. L. Mayo, Rochester, Minn.

Meeting with Section on Pathology and Physiology.

Some Newer Methods in the Examination of the Thoracic Cavity. J. A. Capps, Chicago.
Border-line Affections of the Lung. J. H. Musser, Philadelphia.
The Treatment of Pleurisy with Effusion. F. Forschheimer, Cincinnati.
Chronic Non-tubercular Affections of the Lungs and Pleura. S. G. Bonney, Denver.
Bacteriology of Pleural Effusions. L. W. Ladd, Cleveland.
Cytology of Pleural Effusions. Percy Musgrave, Boston.
Studies on Cardiospasm. Bertram W. Sippy, Chicago.
Intermittent Fever in the Convalescence of Typhoid. J. Dutton Steele, Philadelphia.
Value of Tests for Occult Blood in the Diagnosis and Treatment of Diseases of the Digestive Organs. F. W. White, Boston.
Non-calculous Cholecystitis. A. O. J. Kelly, Philadelphia.
Indications and Contraindications to the Use of X-Rays in Medical Cases. D. L. Edsall, Philadelphia.
Acute Leukemia. Philip Marvel, Atlantic City, N. J.
Postcritical Fever and Other Sequelæ of Croupous Pneumonia. J. E. Talley, Philadelphia.
The Opsonic Index in Medicine. Norman Ditman, New York.

Discussion on Chronic Headache: Its Causes and Treatment.

Nose and Sinuses. Cornelius G. Coakley, New York City.
Eye. George Gould, Philadelphia.
Ear. Philip Hammond, Boston.
Chronic Nervous Headaches. G. L. Walton, Boston.



Boston City Hospital.

Headache Due to Affections of the Pelvic Organs. F. H. Davenport, Boston.

Migraine. Joseph Collins, New York City.

Headache Due to Disturbance of the Digestive Tract. Joseph Sailer, Philadelphia.

Headache of Renal Origin. A. C. Croftan, Chicago.

Evening Demonstrations are to be made by Drs. R. C. Cabot, Locke and Joslin.

A Case of Septicemia from Colon Bacillus. DeLancey Rochester, Buffalo.

The Differential Diagnosis Between Duodenal Ulcer and Gallstone Disease. Christopher Graham, Rochester, Minn.

Papers are also to be read by Drs. George Dock, Ann Arbor, and Richard C. Cabot, Boston, the titles of which are not yet received.

SECTION ON OBSTETRICS AND DISEASES OF WOMEN.

CHAIRMAN, C. S. BACON, CHICAGO; SECRETARY, W. P. MANTON, 32 WEST ADAMS AVENUE, DETROIT.

Chairman's Address: The Legal Responsibility of the Physician for the Child in Utero. Charles S. Bacon, Chicago.

Tuberculosis of the Kidney. Charles P. Noble, Philadelphia.

The Treatment of Tuberculosis of the Urinary Tract in Women. Edgar Garceau, Boston.

The Formation of a Vesico-vagino-rectal Fistula Combined with Closure of the Introitus Vaginæ for Certain Forms of Urinary Incontinence. Reuben Peterson, Ann Arbor.

Report of Committee on Nomenclature of Endometritis. Ernest F. Tucker, Chairman, Portland, Ore.

Success, the Surgical Desideratum. A. Ernest Gallant, New York.

The Pathology of Uterine Cancer. Thomas S. Cullen, Baltimore.

The Early Symptoms of Uterine Cancer. John G. Clark, Philadelphia.

The Operative Treatment of Cancer of the Cervix Uteri. Emil Ries, Chicago.

The Radical Operation in Uterine Cancer. Alfons von Rosthorn, Heidelberg, Germany.

Report of Committee on Uterine Cancer. John G. Clark, Chairman, Philadelphia.

Opening Discussion on Uterine Cancer. James F. W. Ross, Toronto, Canada.

The Operative Treatment of Cancer of the Rectum. Matthew D. Mann, Buffalo.

The Preservation of the Functions of the Broad Ligaments in Pelvic Surgery. E. C. Dudley, Chicago.

The Function of the Uterosacral and Round Ligaments. J. Wesley Bovée, Washington, D. C.

The Conservative Surgery of the Ovaries. Edward Reynolds, Boston.

The Present Status of Conservatism in the Surgical Treatment of Tubes and Ovaries. J. E. Cannaday, Paint Creek, W. Va.

Hernia of the Ovary and Fallopian Tube. Frank T. Andrews, Chicago.

Lung Complications Following Abdominal Operations. Hunter Robb, Cleveland.

The Stem Pessary for Amenorrhea and Dysmenorrhea. Some Further Observations. J. H. Carstens, Detroit.

Choice of Methods for Dilating the Gravid Uterus. Edward P. Davis, Philadelphia.

Manual and Instrumental Dilatation of the Pregnant and Parturient Uterus. J. Clifton Edgar, New York.

Instrumental Dilatation of the Parturient Uterus. Franklin S. Newell, Boston.

The Indications for the Use of the Bossi Dilator and the Technic of Its Use, with a View to Avoiding Serious Lacerations. Barton Cooke Hirst, Philadelphia.

Progress in Obstetrics and Gynecology. A. Duhrssen, Berlin, Germany.

Uterine Myomata Complicated with Pregnancy, with Cases. E. E. Montgomery, Philadelphia.

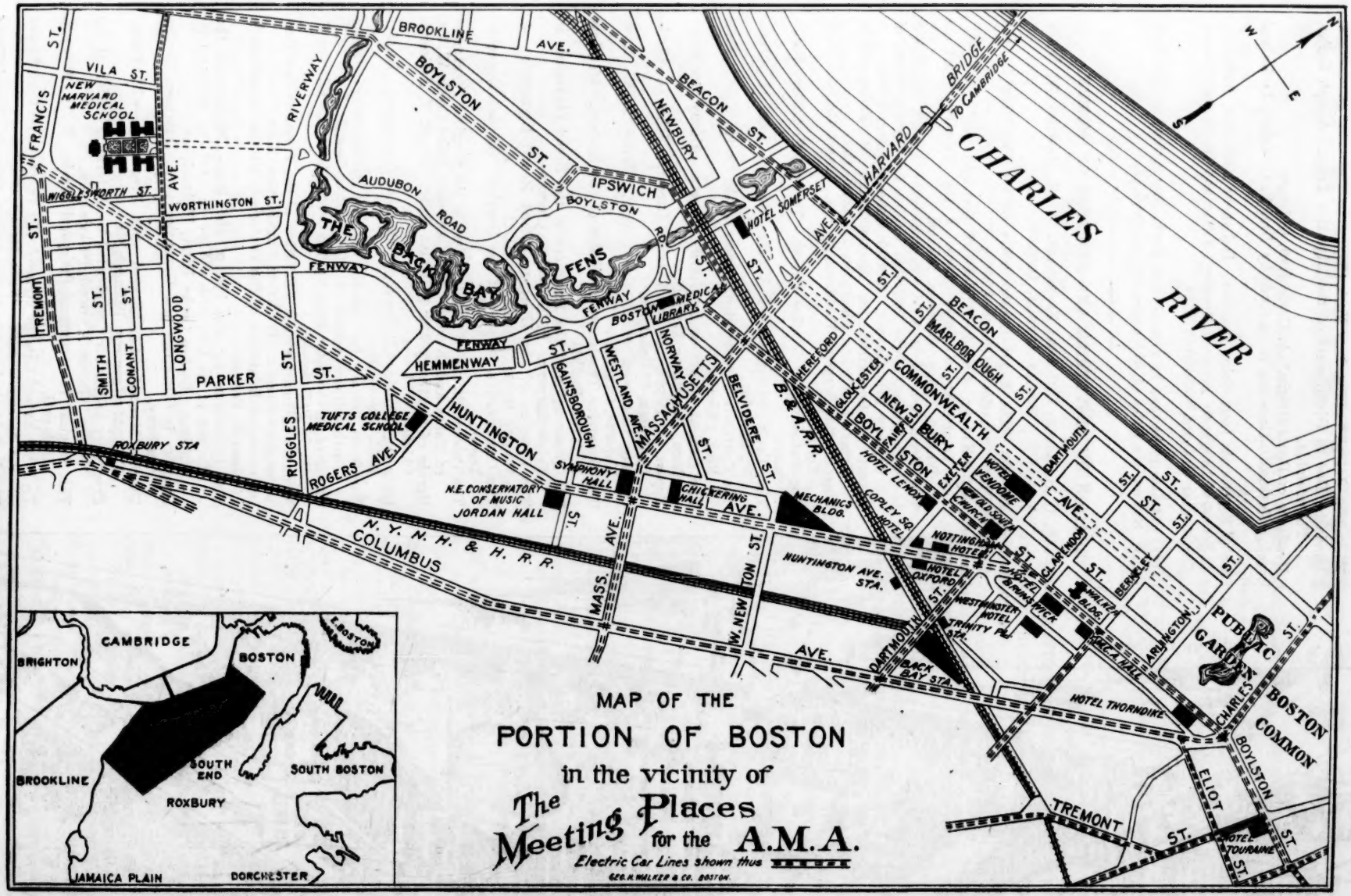
Pregnancy and Labor Complicated by Anterior Fixation of the Uterus. George M. Boyd, Philadelphia.

The Surgical Treatment of Puerperal Sepsis. R. W. Stewart, Cincinnati.

To What Extent Can the Gynecologist Prevent and Cure Insanity Among Women. W. O. Henry, Omaha.

The Best Method of Closure of Aseptic Wounds, Especially of the Abdomen. Henry O. Marcy, Boston.

Retroperitoneal Cysts: Developing Possibly from the Wolffian Body. Report of Cases. Francis D. Donaghue, Boston.



MAP OF THE

PORTION OF BOSTON

in the vicinity of

The Meeting Places for the A.M.A.

Electric Car Lines shown thus ▬▬▬

GEO. H. WALKER & CO. BOSTON.

HEADQUARTERS.

Vendome: General Officers.
Somerset: Practice of Medicine.
Copley Square: Obstetrics and Pathology.
Brunswick: Surgery and Anatomy.
Thorndike: Hygiene and Laryngology.
Lenox: Ophthalmology.
Nottingham: Children and Cutaneous.
Westminster: Stomatology.
Touraine: Nervous and Mental Diseases.
Oxford: Pharmacology and Therapeutics.

MEETING PLACES.

Mechanics Hall: Opening Session, Registration, Clinical Exhibit, etc.

Boston Medical Library: House of Delegates.

Jordan Hall: Evening General Session. Section on Surgery, Tuesday evening.

New Harvard Medical School: Scientific Exhibit; Sections on Ophthalmology, Diseases of Children, Nervous, Cutaneous, Laryngology, Pathology.

Tufts College Medical School: Sections on Hygiene, Stomatology, Pharmacology.

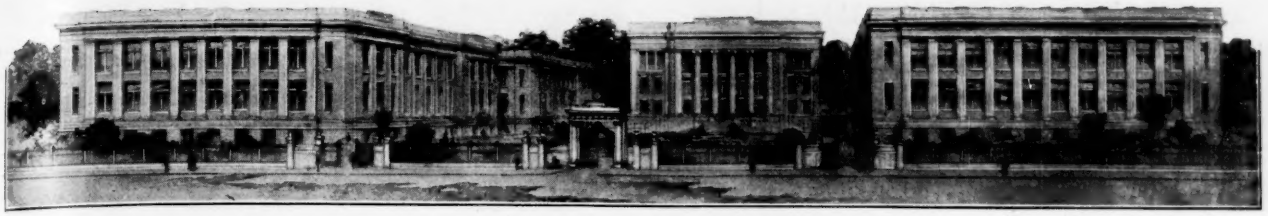
Y. M. C. A. Hall: Section on Practice of Medicine.

Chickering Hall: Section on Obstetrics.

Huntington Hall: Section on Surgery, Wednesday, Thursday, and Friday p. m.

New Old South Church: Joint Session of the Sections on Medicine and Surgery, Wednesday a. m.

Symphony Hall: Special A. M. A. Luncheon Restaurant.



New Harvard Medical School Buildings, Longwood Avenue, where the Scientific Exhibit, the meetings of six sections and three afternoon entertainments will be held.

SECTION ON SURGERY AND ANATOMY.

CHAIRMAN, ROBERT F. WEIR, NEW YORK; SECRETARY, ARCHIBALD MACLAREN, 110 LOWRY ARCADE, ST, PAUL, MINN.

Chairman's Address. Robert F. Weir, New York.

Address. Prof. F. Trendelenburg, Germany.

The Results of the Partial Occlusion of Large Arteries, Especially of the Thoracic and Abdominal Aorta. W. S. Halstead, Baltimore.

Tumors of the Carotid Gland. W. W. Keen, Philadelphia.

Appendicostomy. James P. Tuttle, New York.

Surgical Treatment of Femoral Hernia. A. J. Ochsner, Chicago.

Surgical Diseases of the Sigmoid. H. D. Niles, Salt Lake City.

Neoplasms of the Colon. A. F. Jonas, Omaha.

Additional Experiences in the Treatment of Aneurism by the Author's Method of Intrasaccular Suture (Endo Aneurismorrhaphy). R. Matas, New Orleans.

Capillarity in Intestinal Suturing. F. Gregory Connell, Salida, Colo.

Treatment of Exophthalmic Goiter by a Specific Serum. Its Preparation. John Rogers and S. P. Beebe, New York.

Indications for Prostatectomy and Its Results. Alexander Hugh Ferguson, Chicago.

Prostatic Hypertrophy. E. Hurry Fenwick, London, England.

The Clinical Importance of Variations of the Bones of the Hands and Feet. Thomas Dwight, Boston.

Cardiac Stimulation for Suspended Animation by Direct Digital Manipulators. Report of Cases and Illustrations. B. M. Ricketts, Cincinnati.

Five Years' Use of an Original Filigree for the Prevention and Repair of Abdominal Hernia. Willard Bartlett, St. Louis.

Radium in Surgical Work. Robert Abbe, New York.

A New Primary Position in the Bloodless Treatment of the Congenital Hip Dislocation. Frederick Mueller, Chicago.

Further Considerations of the Surgery of the Spinal Cord and Peripheral Nerves. Experimental and Clinical. J. B. Murphy, Chicago.

Treatment of Fractures of the Patella. J. Ransohoff, Cincinnati.

The Massachusetts General Hospital on Blossom Street. In the dome of this building the use of ether for surgical anesthesia was first demonstrated by Morton in 1846.

Causes and Diagnosis of Gastric and Duodenal Ulcer. Frank Billings, Chicago.

Medicinal Treatment of Gastric and Duodenal Ulcer. Bertram W. Sippy, Chicago.

When Do the Gastric and Duodenal Ulcers Require Surgical Treatment and What Procedures Are Advisable? W. L. Rodman, Philadelphia.

The Results of the Surgical Treatment of Gastric and Duodenal Ulcers. W. J. Mayo, Rochester, Minn.

Results of Medical and Surgical Treatment of Gastric Ulcer in Massachusetts General Hospital from 1896 to 1906. H. F. Hewes, Boston.

Tabulation of Ulcer Cases Recently Treated in Massachusetts General Hospital and Demonstration of Patients. H. F. Hewes, Boston.

The Recognition and Surgical Treatment of Duodenal Ulcer. W. D. Haggard, Nashville, Tenn.

Report of Cases of Uterine Fibroids Associated with Gallstones. A. Vanderveer, Albany, N. Y.

Surgical Intervention in Affections of the Biliary Tract. John B. Deaver, Philadelphia.

Some Experiences in the Surgical Treatment of Exophthalmic Goiter. F. I. Shepard, Montreal, Canada.

Results from the Surgical Treatment of (a) Facial Palsy, (b) Brachial Birth Palsy. Alfred S. Taylor and L. Pierce Clark, New York.

Treatment of Fractures of the Patella. Joseph Ransohoff, Cincinnati.

Diseases of the Urachus. J. F. Binnie, Kansas City.

Spontaneous Intracranial Hemorrhage Associated with Trigeminal Nevi. Harvey Cushing, Baltimore.

Tuberculosis of the Kidney. Arthur D. Bevan, Chicago.

The Surgical Aspects of Congenital Cystic Kidney. F. B. Lund, Boston.

Treatment of Bone Cavities. James E. Moore, Minneapolis.

The Technic of Operations on the Head and Neck. George W. Crile, Cleveland.

Dislocation of the Outer End of the Clavicle; Its Pathology and Treatment. Charles L. Scudder, Boston.

Hour-glass Duodenum. K. A. J. Mackenzie, Portland, Ore.

Surgical Treatment of Congenital Hydrocephalus, with Report of a Case of Meningocele and Hydrocephalus. J. Shelton Horsley, Richmond, Va.

A paper is also to be read by A. J. McCosh, New York, the title of which has not been received.

SECTION ON OPHTHALMOLOGY.

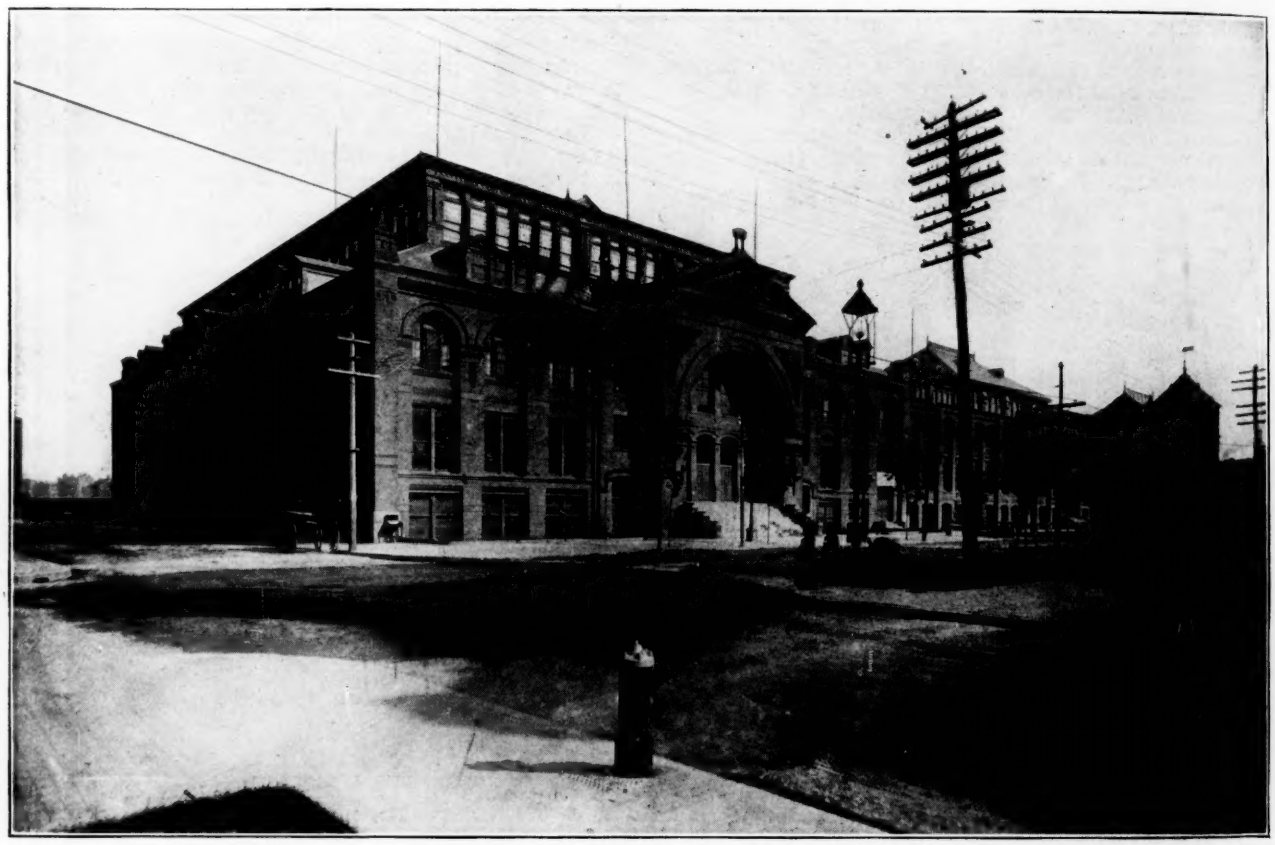
CHAIRMAN, LEWIS H. TAYLOR, WILKESBARRE, PA.; SECRETARY, ALBERT E. BULSON, JR., FORT WAYNE, IND.

Chairman's Address. Lewis H. Taylor, Wilkesbarre, Pa.

Symposium on the Bacteriology of the Eye.

The Bacteriology of the Eyelids. George S. Derby, Boston.
The Pathogenic Bacteria of the Conjunctiva. E. A. Shumway, Philadelphia.
The Diplobacillus of Morax-Axenfeld. Brown Pusey, Chicago.
Pathogenic Bacteria of the Eyeball. John E. Weeks, New York City.
The Staining and Examination of the Bacteria of the Eye by Simple Practical Methods. E. S. Thomson, New York City.

The Differential Diagnosis and Prognosis of Tumors of the Uveal Tract. H. V. Würdemann, Milwaukee.
So-Called Leucosarcoma of the Iris. E. V. L. Brown, Chicago.
The Treatment of Simple Chronic Glaucoma with Miotics. William C. Posey, Philadelphia.
The Relation of Disease of the Nasal Accessory Sinuses to Disease of the Eyes. F. E. Brawley, Chicago.
A Demonstration of the Fundi of Some Birds, with Remarks on Their Eyes and Eyesight. Casey A. Wood, Chicago.
Conjugate Lateral Deviations. J. H. Claiborne, New York City.
Dendritic Keratitis of Malarial Origin. E. C. Ellett, Memphis.
Some Axioms Concerning Ocular Rotations. G. C. Savage, Nashville.
The Ripening Operation for Immature Senile Cataract. Its Place. F. C. Todd, Minneapolis.
The Eye Injuries of Independence Day, and What Has Been Accomplished in Baltimore Toward Lessening Them. A Further Contribution to the Subject. R. L. Randolph, Baltimore.
Ocular Injuries from Foreign Bodies, with Report of 420 Cases. William M. Sweet, Philadelphia.
The Use of the Secondary Cataract Knife. M. Black, Denver.
A New Phenomenon of Color Conversion. G. T. Stevens, New York City.



Mechanics Hall, on Huntington Avenue, where the Bureau of Registration and Information, the Opening Session, the Commercial, Clinical and Public Health Exhibits, and a ladies' rest room will be situated, and where a reception to the President and members of the American Medical Association will be held.

Paraffin Plates as an Aid in Operations for Extensive Symblepharon and the Restoration of Cul-de-Sacs for Prothesis. William H. Wilder, Chicago.
Autointoxication in Relation to the Eye. G. E. de Schweinitz, Philadelphia.
Exhibition, by Means of the New Opaque Projector of Original Colored Ophthalmoscopic Drawings. Charles H. Beard, Chicago.
A Study of Convergence and Its Defects, Including an Analysis of 441 Cases of Exophoria. Wendell Reber, Philadelphia.
Some Personal Experiences in the Use of Electricity in Ophthalmic Practice. W. F. Coleman, Chicago.
The Value of X-Rays in Ocular Therapeutics. G. Oram Ring, Philadelphia.
Some Important Considerations in the Extraction of Cataract. Mark D. Stevenson, Akron, Ohio.
Incurable Eyestrain. George M. Gould, Philadelphia.
A New Supplementary Test for Color Vision. Nelson M. Black, Milwaukee.
Some Unusual Ocular Manifestations of Arteriosclerosis. William Zentmayer, Philadelphia.
Injuries of the Eye with Birdshot. W. B. Marple, New York City.
Uniocular Inflammations of the Optic Nerve and Retina. A. A. Hubbell, Buffalo.
The Treatment of Progressive Atrophy of the Optic Nerve, Due to Acquired Syphilis, by Subconjunctival and Intravaginal Injections of Sublimate of Mercury. C. S. Bull, New York City.
Physical Economics. E. E. Holt, Portland, Maine.
Ophthalmic Practice of the Present Time. T. Valk, New York City.
Cataract Extraction with Modified Iridotomy. F. H. Verhoeff, Boston.
Relations of the Superior and Inferior Recti Muscles to Convergent Squint. Edward Jackson, Denver.
Retrobulbar Optic Neuritis Following Childbirth. C. J. Kipp, Newark.
A More Uniform Standard of the Illumination of Visual Test-Types. C. H. Williams, Boston.

SECTION ON HYGIENE AND SANITARY SCIENCE.

CHAIRMAN, DENSLOW LEWIS, CHICAGO; SECRETARY, ELMER E. HEG, SEATTLE, WASH.

Chairman's Address: The New Hygiene. Denslow Lewis, Chicago.

The Fetich of Disinfection. C. V. Chapin, Providence, R. I.

Health Inspection as Applied to the Individual. Louis Faugeres Bishop, New York.

The Plague. Ashburton Thompson, Sydney, N. S. W.

The Pathology of the Plague. Maximilian Herzog, Manila, P. I.

The Plague of American Cities. N. K. Foster, Sacramento, Cal.

Symposium on the Rational Prophylaxis of the Venereal Diseases.

Publicity as a Factor in Venereal Prophylaxis. Prince A. Morrow, New York; Max Joseph, Berlin, and William J. Herdman, Ann Arbor, Mich.

The Guarantee of Safety in the Marriage Contract. Albert H. Burr, Chicago, and Prof. A. Dührssen, Berlin.

The Study of Stirpiculture as a Preventive of Degeneracy. G Stanley Hall, President Clark University, Worcester, Mass.

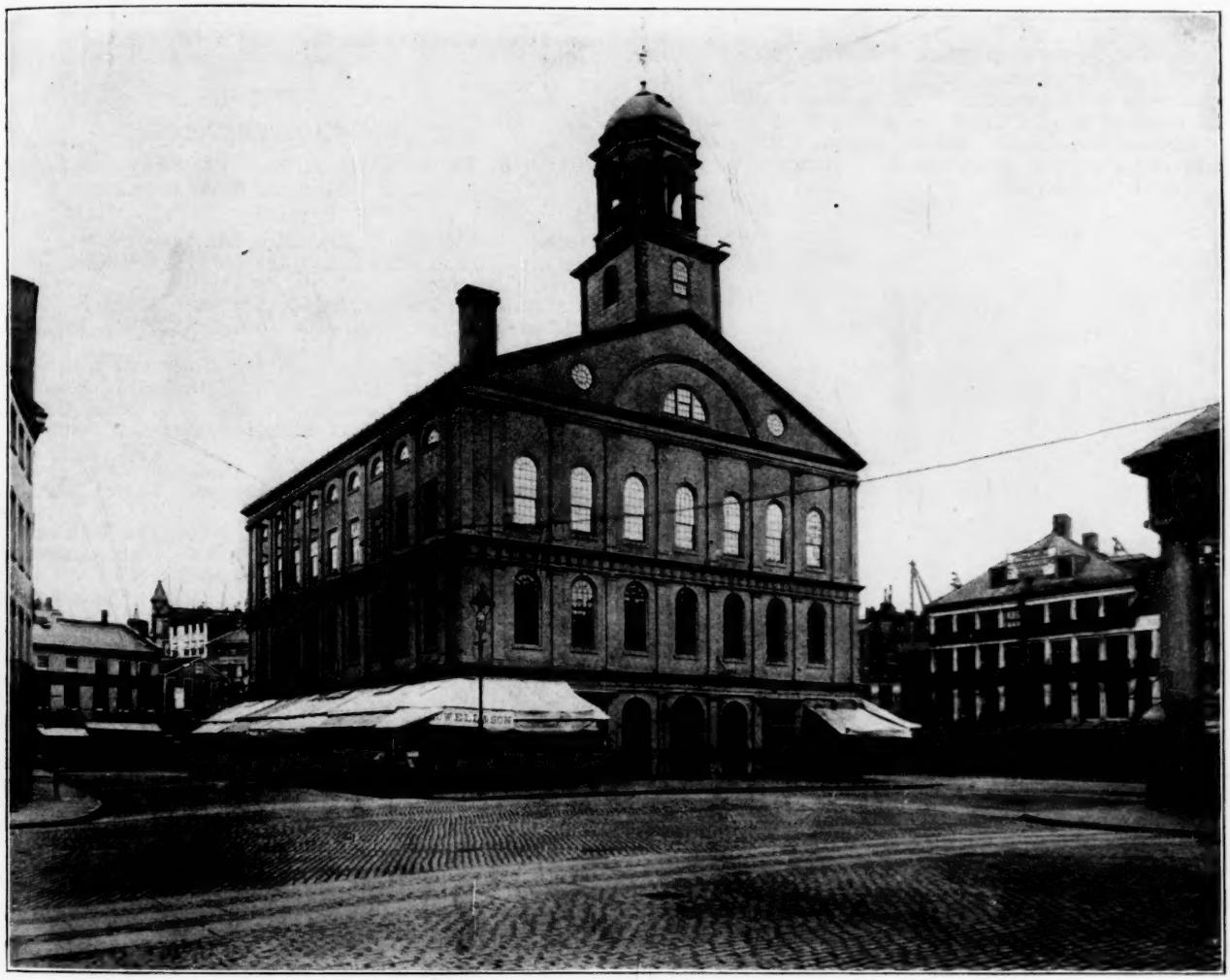
Education as a Factor in the Prevention of Criminal Abortion and Illegitimacy. Henry O. Marcy, Boston; J. Henry Carstens, Detroit, and Joseph Price, Philadelphia.

The Protection of the Innocent. Charles A. L. Reed, Cincinnati; William Lee Howard, Baltimore, and Edward L. Keyes, Jr., New York.

The Restoration of the Fallen. Miss Eva Booth, Commander of the Salvation Army in America; Graham Taylor, of Chicago Commons, and Jacob A. Riis, Long Island, N. Y.

Symposium on the Hygiene of Tuberculosis.

The Duty of Municipalities and States in the Prevention and Control of Tuberculosis. G. Walter Holden, Denver.



Faneuil Hall, the "Cradle of Liberty," of Revolutionary fame.

The Duty of the State in Reference to Venereal Diseases. W. C. Chapman, Toledo, Ohio; G. Shearman Peterkin, Seattle, Wash.; Henry D. Holton, Brattleboro, Vt., and Prof. T. Tuffier, Paris, France.

What Shall We Teach the Public Regarding Venereal Diseases? Albert E. Carrier, Detroit; George S. Whiteside, Portland, Ore., and Bransford Lewis, St. Louis.

Venereal Diseases in Children. Judge Ben. B. Lindsey, of the Juvenile Court, Denver, and Alfred C. Cotton, Chicago.

The Etiology of the Social Evil. Charles Chassaignac, New Orleans, and G. Frank Lydston, Chicago.

A Practical Lesson in Reglementation. William E. Harwood, Eveleth, Minn.

The Prostitute Problem. Charles G. Cumston, Boston, and Ludwig Weiss, New York.

Symposium on the Duty of the Profession to Womankind.

The Physical and Evolutionary Basis of Marriage. Bayard Holmes, Chicago.

The Duty of the Railroads in Transportation and Care of Tuberculous Passengers. John R. Haynes, Los Angeles, Cal.

The Value of the Sanatorium in the Crusade Against Tuberculosis. Clarence L. Wheaton, Chicago.

Some Ways to Prevent the Spread of Tuberculosis. William M. Beggs, Denver.

Compulsory Registration. Herman M. Biggs, New York.

Symposium on the Alcohol Question.

The Effects of Alcohol on the Human System.

(a) Relating to Physiologic Effect. John Madden, Portland, Ore.

(b) Relating to Effect on School Children. T. Alex. MacNicholl, New York.

(c) Relating to Tuberculosis. T. J. Mays, Philadelphia.

(d) Relating to Degeneracy. E. S. Talbot, Chicago.

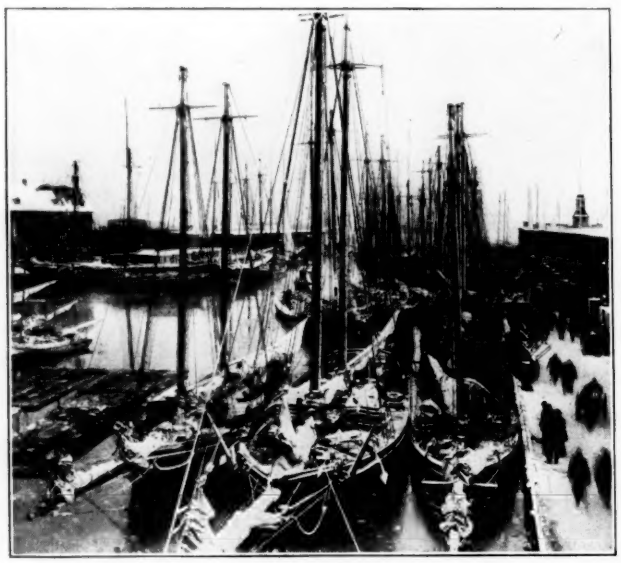
(e) Relating to Epilepsy. Matthew Woods, Philadelphia.

The Value of Instruction Regarding Alcohol. Henry F. Hewes, Boston, and Mrs. K. Stevenson, W. C. T. U., Boston.
The Limitation of Intemperance. Samuel Dickie, President Albion College Albion College, Michigan; E. C. Lovering, U. S. Navy, and Charles E. Woodruff, U. S. Army.
The Care of the Inebriate. T. D. Crothers, Hartford, Conn.; C. E. Woodbury, Foxborough, Mass.; George F. Butler, Chicago, and L. A. Mason, Brooklyn.

SECTION ON DISEASES OF CHILDREN.

CHAIRMAN, W. C. HOLLOPETER, PHILADELPHIA; SECRETARY, W. J. BUTLER, 1487 JACKSON BOULEVARD, CHICAGO.

Address of Welcome. Thomas Morgan Rotch, Boston.
Chairman's Address—The Pediatric Outlook. W. C. Holloppeter, Philadelphia.
Injuries to the Child's Head During Labor and the Duties of the Obstetrician in the Matter. B. Sachs, New York City.
Heredity and Environment. C. F. Wahrer, Ft. Madison, Iowa.
Hemorrhage in the Newborn. H. McClanahan, Omaha.
The Value of Blood Cultures in the Diagnosis of Acute Infections in Children. Thomas Morgan Rotch, Boston.
Fever and the Place of Salines in Treatment. J. Madison Taylor, Philadelphia.



T Wharf, with the schooners of the fishing fleet. One of the characteristic sights of the Boston water front.

Bacteriologic and Blood Findings in 36 Cases of Bowel Infection in Infants. J. C. Cook, Chicago.
A Further Contribution to the Study of Stools in Starch-Fed Infants. C. G. Kerley and N. H. Mason, New York City.
Sodium Citrate in Infant Feeding. A. C. Cotton, Chicago.
Recent Landmarks in the Artificial Feeding of Infants. Thomas S. Southworth, New York City.
Whole Milk Versus Laboratory Feeding. A. McAllister, Camden, N. J.
Tuberculosis in Infants and Children. E. E. Graham, Philadelphia.
Open-Air Treatment of Pneumonia. W. P. Northrup, New York City.
An Analysis of 40 Cases of Meningitis in Infants. J. L. Morse, Boston.
Cerebral Syphilis in Childhood. Arthur W. Fairbanks, Boston.
Modification of Milk, Simple and Accurate. Daniel Brown, Salem, Mass.
Simplicity in Infant Feeding. C. Townsend, Boston.
Report on Certified Milk Dairy of Elmira, N. Y. C. W. M. Brown, Elmira, N. Y.
Pleuritic Exudate in Children. Melinda Germann, Quincy, Ill.
Rhinitis in Children. Louis Fischer, New York City.
Bacteriology of Upper Respiratory Tract, with Special Reference to Influenza Bacillus. D. J. Davis, Chicago.
Contribution to the Study of Congenital Laryngeal Stridor. A. Friedlander, Cincinnati.
Rheumatism in Children. J. Ross Snyder, Birmingham, Ala.
The Clinical Aspects of Acute Rheumatism in Childhood and Their Significance in the Question of Specific Etiology. C. H. Dunn, Boston.
Superstition in Teratology. E. T. Shelley, Atchison, Kan.
The Opsonic Content of the Blood of Infants. Samuel Amberg, Baltimore.
Neuroma and Neurofibroma. W. E. Darnell, Atlantic City, N. J.
Congenital Word-Blindness. J. H. Claiborne, New York City.
Constitutional Low Arterial Tension in Children. L. F. Bishop, New York City.
The Value of Small Amounts of Human Milk in the Treatment of Infantile Atrophy and the Infections of Infants. Frances P. Denny, Brookline, Mass.
Tetanus Neonatorum—a Statistical Study, James M. Anders and Arthur C. Morgan, Philadelphia.
Some Unheeded Principles Involved in the Dietetic Management of Infants in Hot Weather. G. R. Pisek, New York City.

SECTION ON STOMATOLOGY.

CHAIRMAN, H. P. CARLTON, SAN FRANCISCO; SECRETARY, EUGENE S. TALBOT, 103 STATE STREET, CHICAGO.

Chairman's Address. H. P. Carlton, San Francisco.
The Structure of the Jaws of the Lower Vertebrates. J. S. Kingsley, Boston.
Development of the Human Jaw. Charles L. Minot, Boston.
Palates of the Feeble-minded. Walter Channing, Brookline, Mass.
The Reflexes of Dentition from the Physician's Standpoint. Charles Hunter Dunn, Boston. Discussion opened by Thomas Morgan Rotch, Boston, and A. C. Cotton, Chicago.
Gingival Manifestations of Metabolic Disorders. Alfred C. Croftan, Chicago.
Interstitial Gingivitis Produced by Autointoxications as Indicated by the Urine and Blood Pressure. Eugene S. Talbot, Chicago.
Treatment of Loosened Teeth. M. L. Rhein, New York City.
Conservatism in the Treatment of Infants with Harelip and Cleft Palate. G. V. I. Brown, Milwaukee, Wis.
Conservative Surgery of the Lip. Thomas Fillebrown, Boston.
The Prevention of Disfiguring Scars About the Face. M. I. Schamberg, Philadelphia.
Some Pathologic Features of the Pulp. V. A. Latham, Chicago.
The Relation of Systemic Diseases to the Conditions of the Oral Cavity. James E. Power, Providence, R. I.
Medical Phases of Dental Disorders. Samuel A. Hopkins, Boston.
The Botanical Diagnosis of Leptothrix Racemosa and Its Relations to the Modern Doctrine of Bacteriology. Filandro Vincenti, Chieli, Italy.
Practical Innervation of the Trifacial Nerve. M. H. Fletcher, Cincinnati.
Two Cases of Infantile Scurvy. Alice M. Steeves, Boston.

NERVOUS AND MENTAL DISEASES.

CHAIRMAN, WHARTON SINKLER, PHILADELPHIA; SECRETARY, T. H. WEISENBERG, 2030 CHESTNUT STREET, PHILADELPHIA.

This program appears about fifteen pages further on.

SECTION ON LARYNGOLOGY AND OTOLOGY.

CHAIRMAN, OTTO T. FREER, 288 HURON ST., CHICAGO; SECRETARY, W. S. BRYANT, 57 WEST 53D STREET, NEW YORK.

Diagnosis, Prognosis and Treatment of Laryngeal Tuberculosis. Herman Stolte, Milwaukee, Wis.
Certain Facts Concerning Faucial Tonsils. Charles M. Robertson, Chicago, Ill.
Tracheal Inflammation. Emil Mayer, New York City.
The Examination and Surgery of the Upper End of the Esophagus. Harris Peyton Mosher, Boston.
Atrophic Rhinitis. George L. Richards, Fall River, Mass.
The Treatment of Hypertrophic Intumescent Rhinitis. E. Fletcher Ingals and Stanton S. Friedberg, Chicago.
Physiology of Coryza. F. C. Cobb, Boston.

Acute and Chronic Suppuration of the Ear and Nose the Direct Cause of Facial Erysipelas. Cullen F. Welty, San Francisco.

The Use of Tuning Forks in the Diagnosis and Treatment of Deafness Due to Ossicular Rigidity. Philip D. Kerrison, New York City.

Tuberculosis of the Middle Ear and Mastoid. Eugene A. Crockett, Boston.

Exhibition of New Instruments, (a) Protection Sheet for Mastoid Surgery, (b) An Algesimeter. H. O. Reik, Baltimore, Md.

Results of Improved Technic in Otological Surgery. W. Sohier Bryant, New York City.

A Modification of the Simple Mastoid Operation which Shortens Convalescence by Facilitating Wound Repair. E. M. Plummer and H. H. Germain, Boston.

Technic in the After Care of the Radical Mastoid Operation. Philip Hammond, Boston.

Treatment of Intracranial Complications of Middle Ear Suppuration. Edward B. Dench, New York City.

Otology in Its Relation to Rhinology and Larynology. Clarence J. Blake, Boston.

Lumbar Puncture in Ear Disease. Seymour Oppenheimer, New York City.

Killian Operation. Frederick L. Jack, Boston.

The Frontal Sinus and Some of Its Variations. M. H. Cryer, Philadelphia.

Skiagraphy of the Air Sinuses. Cornelius G. Coakley, New York City.

Some Conclusions on the Submucous Window Resection of the Nasal Septum, Based on a Series of Cases. Lee Maidment Hurd, New York City.

The Submucous Resection of the Nasal Septum. J. F. Byington, Battle Creek, Mich.

A Second Report (after ten years) of the Experiences, Procedures and Results in Subperichondrial and Subperiosteal Operations on the Cartilages and Bones of the Nasal Septum. Robert C. Myles, New York City.

A paper, the title of which is not yet received, will be read by Sir William Macewen, Glasgow, Scotland.

A paper, the title of which is not yet received, will be read by D. Bryson Delavan, New York City.

SECTION ON CUTANEOUS MEDICINE AND SURGERY.

CHAIRMAN, DOUGLAS W. MONTGOMERY, SAN FRANCISCO, SECRETARY, R. R. CAMPBELL, 100 STATE STREET, CHICAGO.

The Age at Which Syphilis is Acquired. Douglas W. Montgomery, San Francisco.

Leukoplakia in Its Relation to Other Dermatoses. Max Joseph, Berlin, Germany.

Four Cases of More or Less Complete Alopecia in a Family of Eleven. Henry W. Stelwagon, Philadelphia.

The Therapeutic Nature of Chrysophanic Acid in Dermatology. Charles James Fox, Hartford, Conn.

A Case of Pemphigus Affecting the Mucous and Serous Membranes Only. Edmund L. Cocks, New York City.

On the Relations of Nerve Impulse to Cutaneous Inflammation. Ernest L. McEwen, Chicago.

Pemphigus Neonatorum. O. H. Foerster, Milwaukee, Wis.

Lichen Planus of the Mouth and Lips, with Report of a Case. David Lieberthal, Chicago.

Eczema. Henry G. Anthony, Chicago.

The Consequences of Lupus Vulgaris of the Ear. A. Ravogli, Cincinnati.

An Unsolved Postmortem in Syphilis. A. H. Ohmann-Dumesnil, St. Louis.

Aids to Accuracy and Efficiency in Radiotherapy. Henry G. Piffard, New York City.

Exhibition of Wax Models Cases of Leprosy. F. R. Day, Honolulu.

Endothelioma. William S. Gottheil, New York City.

Generalized Multiple Pigmented Sarcoma Originating in the Skin. William Frick and Frank J. Hall, Kansas City, Mo.

Myomata Cutis. M. L. Heidingsfeld, Cincinnati.

The Cure of Psoriasis. L. Duncan Bulkley, New York City.

Some Conditions of the Skin in Which the High Frequency Spark is Efficacious. Charles W. Allen, New York City.

A Record of Some Unusual Cases. William S. Gottheil, New York City.

Papers will also be read by Drs. Ludwig Weiss, New York City, and Jay F. Schamberg, Philadelphia.

SECTION ON PHARMACOLOGY AND THERAPEUTICS.

CHAIRMAN, THOMAS F. REILLY, NEW YORK CITY; SECRETARY, C. S. N. HALLBERG, 355 DEARBORN STREET, CHICAGO.

The Therapeutic Uses of Thyroid Preparations. Oliver T. Osborne, New Haven, Conn.

The Pharmacology of Digitalis and Its Principles. Robert A. Hatcher, New York.

The Prevention and Cure of Relapsing Fever. Frederick G. Novy, Ann Arbor, Mich.

The Back Swing of the Pendulum. James N. Butler, New York.

The Treatment of Asthma. Delancey Rochester, Buffalo, N. Y.

Normal Peristalsis of the Stomach and Intestines and the Effects of Certain Drugs on It. Results of Experimental Work. F. Pfaff and L. Nelson, Boston.

The Value of Predigested Food Preparations. A. L. Benedict, Buffalo, N. Y.

The Diet in Albuminuria, a Clinical and Experimental Study. Heinrich Stern, New York.

Prescribing versus Dispensing. M. Howard Fussell, Philadelphia.

Methyl-thionin Hydrochlorid in Inoperable Cancer. A. Jacobi, New York.

The Use of Eucalyptus in Actinomycosis and Filariasis. Glentworth Butler, Brooklyn.

Statue of the "Minute Man" at Concord.

Solanin. William F. Waugh, Chicago.
Discussion to be opened by G. F. Butler, Chicago.

Dietetic Treatment of Diabetes Mellitus. Max Einhorn, New York.
Discussion to be opened by J. C. Hemmeter, Baltimore.

Suggestions as to the Revision of the U. S. P. and a Plea for Strong Medical Representation. Martin I. Wilbert, Philadelphia.

The National Formulary in Its Attitude to Pharmaceutical Proprietaries. C. Lewis Diehl, Louisville, Ky.

The Chemistry of the Organic Silver Compounds. W. A. Puckner, Chicago.
Discussion to be opened by Solomon Solis-Cohen, Philadelphia.

The Internal Treatment of Skin Diseases. C. H. Bangs, Lynn, Mass.

Palatable Prescribing. Herman Sheffield, New York.

The External Preparation of the U. S. Pharmacopeia VIII. C. S. N. Hallberg, Chicago.

A Novel Method of Using Strychnin and Hydrastin, Particularly in Vesical and Sexual Weakness. William J. Robinson, New York.

The Quinin Treatment of Cholera. Erskine B. Fullerton, Columbus, Ohio.

Addenda to Therapeutic Measures in Certain Forms of Nephritis. E. M. Johnson, Boston.

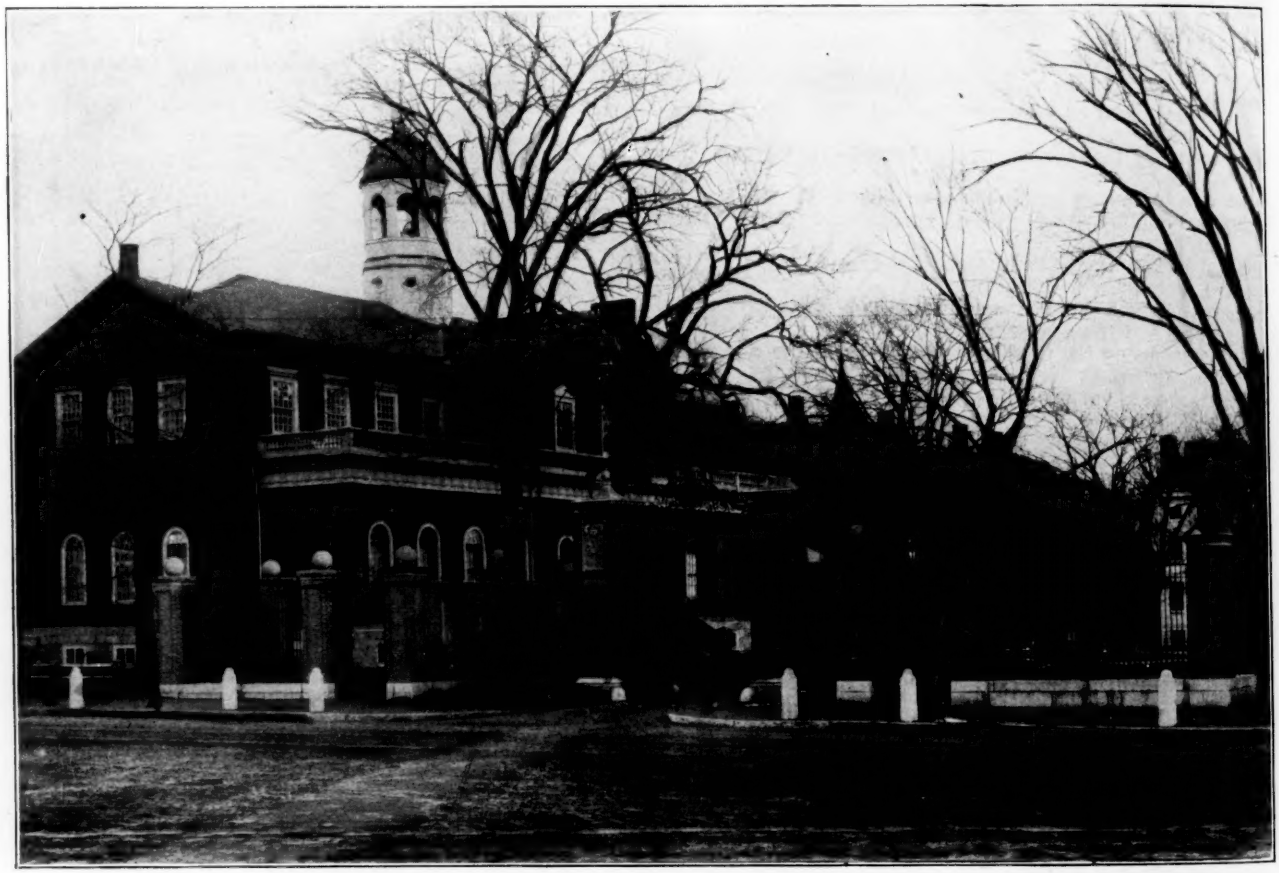
Methods and Description of Treatment in a Tuberculosis Dispensary. Edward O. Otis, Boston.
The Bad Results of the Nauheim Treatment. Morris Manges, New York.
Nostrums: Fraudulent Methods of Exploitation. Lyman F. Kebler, Washington, D. C.

Symposium on the Roentgen Rays.

Therapeutic Uses and Dangers. Charles Lester Leonard, Philadelphia.
Application in Treatment of Superficial Lesions. Russell H. Boggs, Pittsburg, Pa.
Treatment of Malignant Disease. Ennion G. Williams, Richmond, Va.
Discussion to be opened by Bray Brown, Boston.

SECTION ON PATHOLOGY AND PHYSIOLOGY.

CHAIRMAN, HENRY A. CHRISTIAN, BOSTON; SECRETARY, WALTER L. BIERRING, IOWA CITY, IOWA.



Harvard Hall and the Johnston Gateway, at the entrance of Harvard College Yard.

Chairman's Address: Recent American Work in Pathology and Physiology. Henry A. Christian, Boston.
A Study of Acute Leptomeningitis (Streptococcus Pyogenes). E. E. Southard and R. R. Stratton, Boston.
Study in Meningococcus Infections. D. J. Davis, Chicago.
Ehrlich's Theory of Immunity Regarded from the Standpoint of His Experiments. F. P. Gay, Boston.
Lantern Slide Demonstration. (a) Spirillum Obermeieri; (b) Bird Malaria; (c) Insect Trypanosomes. F. G. Novy, Ann Arbor, Mich.
Tuberculosis of an Adenomyoma of the Uterus. R. M. Pearce and J. L. Archambault, Albany, N. Y.
The Blastomyces Group of Organisms. S. B. Wolbach, Boston.
Melanotic Carcinoma. Henry Albert, Iowa City, Iowa.
Mouse Tumors. E. E. Tyzzer, Boston.
A Study of Bone Marrow in the Terminal Stages of Acute Infections. Warfield T. Longcope, Philadelphia.
Cause of Fatigue in Certain Pathologic States. Frederic S. Lee, New York.
The Treatment of Emaciation. L. Breisacher, Detroit.
Experiments on Venous Blood Pressure. Henry Sewall, Denver.
Experiments on Blood Plates. George T. Kemp, Urbana, Ill.
Motor Activities of the Alimentary Canal After Splanchnic and Vagus Section. W. B. Cannon, Boston.
Address in Physiology. Max von Frey, Würzburg, Germany.
Albumins in Urine. T. W. Hastings, New York.
Urine in Diabetes. Mortimer Warren, New York.
Conditions Under Which Dextrose Appears in the Urine During Experimental Ether Anesthesia. Holmes C. Jackson, Albany, N. Y.
Clinical Report of Examination of Urines Excreted Before and After Ether Anesthesia, Together with an Analysis of the Causes of the "Pseudo" Reduction in Fehling's Test. H. E. Robertson and C. W. L. Hacker, Albany, N. Y.
The Physiology and Pathologic Relation Between Phosphoric and Uric Acids. G. W. McCaskey, Fort Wayne, Ind.
The Elimination of Creatinin, Uric Acid and Phosphorus. Holmes C. Jackson and K. D. Blackfan, Albany, N. Y.
Lactic Acid in Metabolism. Graham Lusk, New York.
A Problem in Physiologic Chemistry. Wm. J. Gies, New York.
A Physician's Creed, Past and Present, as to the Physiology of the Heart. Wesley Mills, Montreal, Canada.
Lantern-Slide Demonstration of Ultra-Violet Photomicrography. H. C. Ernst, Boston.
The Bacteria of Scarlatinal and Normal Throats. G. F. Ruediger, Chicago.
Studies on Phagocytosis. D. H. Bergey, Philadelphia.
The Cause of Sudden Death Following the Injection of Horse Serum. M. J. Rosenau, Washington.
Studies in Experimental Phagocytosis. Joseph McFarland, Philadelphia.
A Study of Blood in Banti's Disease Before and After Splenectomy. W. L. Bierring and Anfin Egdahl, Iowa City, Iowa.
Relation of Clinical Pathology to the Actual Practitioner. Louis F. Bishop, New York.
An Improved Operative Method of Forming an Experimental Accessory (Pawlow) Stomach on the Dog. John C. Hemmeter, Baltimore.

Studies in Physiology and Experimental Medicine by Winfield S. Hall and Associates.

(a) The Normal Temperature and Closed Inguinal Fold as Compared with the Rectal Temperature. A. H. Parks, Chicago.

(b) How to Detect Abdominal Hemorrhage. H. S. Hollenbeck, Chicago.

(c) Will Blood in the Peritoneal Cavity be Best Absorbed When Left in Clot or When Dissolved in Physiologic Saline Solution? M. Jampolis, Chicago.

(d) Normal and Pathologic Physiology of the Vagus Nerve. R. J. Pickard, Chicago.

Specific Therapy in Typhoid Fever. Mark W. Richardson, Boston.

Pathologic Findings in Two Cases of Mycosis Fungoides. Samuel T. Orton and Edwin A. Locke, Boston.

A paper will also be read by Dr. Alfred Stengel, Philadelphia, the title of which is not received.

PROGRAMS FOR THE GENERAL MEETINGS.

Opening Meeting.

TUESDAY, JUNE 5, 1906, IN MECHANICS HALL.

9:30-10:30 a. m.—Music.

10:30 a. m.—Call to order by President, Lewis S. McMurtry, Louisville, Ky.

Addresses of Welcome:

President Eliot of Harvard University.

President A. T. Cabot of the Massachusetts Medical Society.

Governor Curtis Guild of Massachusetts.

Mayor John F. Fitzgerald of Boston.

The report of the Committee of Arrangements, Dr. Herbert L. Burrell, Chairman.

Revere Beach Reservation. One of the popular seashore resorts which are a part of the Metropolitan Park System. "Wonderland," an amusement enterprise which will rival Coney Island, will be opened on the 30th of May.

Joint Session Medicine and Pathology.

Bacteriology of Pleural Effusion. Lewis W. Ladd, Cleveland, Ohio.

Cytology of Pleural Effusions. Percy Musgrave, Boston.

Introduction and installation of the President-elect, Dr. William J. Mayo, Rochester, Minn.

Annual address of the President.

Adjournment.

Music.

Second General Meeting.

Tuesday Evening, June 5, 7:30 p. m.

The Second General Meeting will be held Tuesday evening in Jordan Hall.

At this meeting the Oration on Medicine, by Dr. F. C. Shattuck of Boston, and the Oration on Surgery, by Dr. Joseph D. Bryant of New York, will be delivered.

Third General Meeting.

Wednesday Evening, June 6, 7:30 p. m.

The Third General Meeting will also occur in Jordan Hall. At this meeting the Address on State Medicine, by Dr. W. H. Sanders of Montgomery, Ala., will be delivered.

OTHER SOCIETIES.

Some Other Medical Bodies to Meet in Boston the Week of the Session.

At or about the time of the session of the American Medical Association the following societies will also hold their meetings in Boston:

Association of United States Pension Examining Surgeons.

American Academy of Medicine.

American Gastro-Enterological Association.

American Neurological Association.

American Association of Life Insurance Examining Surgeons.

American Urological Association.

American Medical Editors' Association.

And a number of others, of which the Committee of Arrangements has, as yet, received no notice.

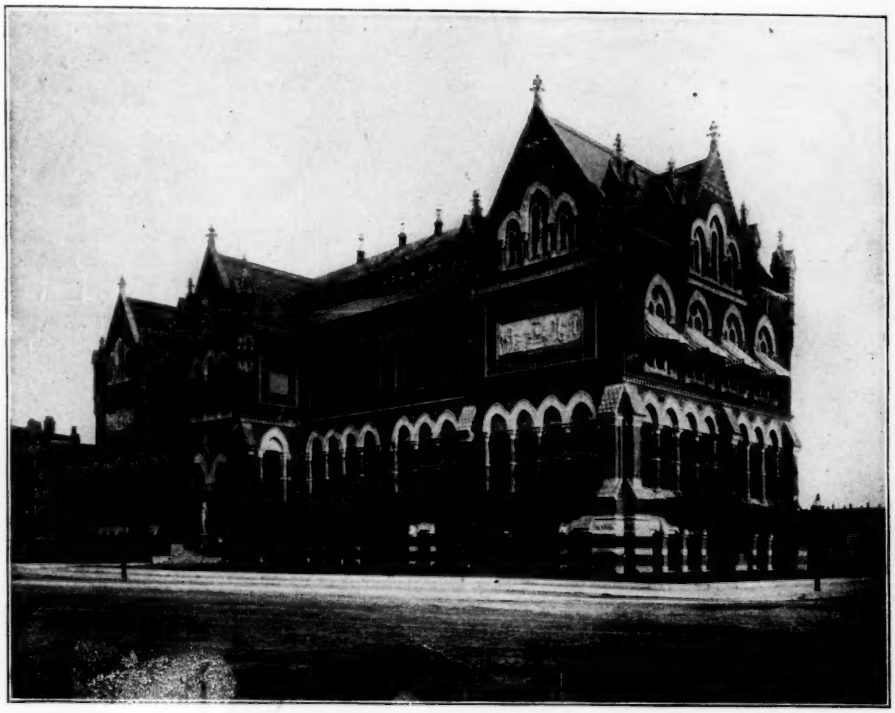
Historic Boston.

A BRIEF DESCRIPTION OF THE MEETING PLACE AND ITS POINTS OF INTEREST.

The selection of Boston as the meeting-place of the American Medical Association in 1906 ensures such a multitude of attractions that already the gathering bids fair to surpass in popularity and in attendance all previous sessions of the Association.

On all sides objects of historical and educational interest will attract the visitor's attention. From the days of the Pilgrim Fathers, until after the Revolution, the Old Colony of Massachusetts was the scene of action for many events which make the history of our country. Here Adams, Franklin, Hancock, Warren and Paul Revere gave each his service to the cause of freedom, and here on the battle-fields of Lexington, Concord and Bunker Hill flowed the blood of the patriots in which our independence was baptized.

As a center of educational and literary achievement Boston has long borne the title of the "Athens of America." It has been the home of our greatest poets, and of many of our most distinguished writers. Memories of Lowell, Longfellow, Holmes, Emerson and Whittier are again and again brought to mind by the scenes that gave them inspiration.



The Boston Art Museum, Copley Square. Special facilities for visiting the Museum will be provided for the members of the Association.

In Cambridge, across the historic Charles River, is Harvard College; that city within a city; where the ivy-covered brick buildings with their revolutionary memories look down through the shades of the elm trees on the green sward of the college yard. The development of Harvard College to its present position as the greatest of the universities of the western world has involved the construction of many splendid buildings, covering a great extent of territory, in Cambridge, Boston, Brookline and other places near at hand, and of these the new medical school buildings are the most recent and most glorious example. This magnificent group of marble buildings, dedicated to the advancement of medical science, and equipped with every facility for instruction and for research, will be thrown open for the first time on the 5th of June for the reception of the members of the American Medical Association, and here the greater number of the section meetings will be held.

It is not on Harvard University alone, however, that Boston is dependent for her reputation in matters educational. The Massachusetts Institute of Technology holds a preëminent position among schools of applied science; the public school system of Boston is a model for many cities, and the Perkins Institute for the Blind, and the School for Crippled and Deformed Children are noted examples of schools for special education.

To the medical profession Boston will always be a city of peculiar interest. The names of Warren, Jackson, Bigelow and Holmes are identified with the early progress of medical science in this country, and the Harvard Medical School, from its beginning in Harvard Hall in Cambridge, to present magnificent accommodations in the new school buildings at Longwood, forms no small part of the history of medicine in America. It is the hospitals of Boston, however, which have contributed most generously to her fame in medicine. They have always been closely associated with her medical schools and they have provided clinical instruction to countless students. The Massachusetts General Hospital has stood for nearly a century as a center for instruction and research in medicine and surgery. In the old operating room under the dome of this hospital, in 1846, Morton first gave to the world the demonstration of surgical anesthesia by the inhalation of ether vapor. The City Hospital, with its splendid department for infectious diseases and its relief station in the down-town district for the care of accident and emergency cases, is a unique example of a Municipal Hospital which has been kept free from the abuses of political control by the enlightened policy of its trustees. The Carney Hospital in South Boston, the Children's Hospital, the Boston Lying-in Hospital, the Infants' Hospital, the Boston Dispensary, the Massachusetts Eye and Ear Infirmary, and many of the smaller institutions will also throw open their doors to members of the Association, and in many cases special programs of demonstrations and operations will be given during the session.

The Boston Medical Library, with its handsome building on the Fenway, its collection of medical books and pamphlets, second only in this country to the library at Washington, and its many relics and treasures in the way of letters, manuscripts, medals and pictures, represents the harmonious devotion of generations of medical men to the common interests of their profession. The spacious halls of the library building serve as meeting places for many of the medical societies of Boston, and at the time of the session of the Association will be set apart for the deliberations of the House of Delegates. The officers of the Boston Medical Library have extended a cordial invitation to the members of the American Medical Association to visit the library during the session and to inspect its valuable collection of books, medals and medical souvenirs.

In the hospitals of Boston and in the laboratories of the Harvard Medical School a complete series of courses of instruction in all the branches of medical science is given every year. The courses which are given during the summer months are intended primarily for the instruction of graduate students, and many members of the Association are already planning to avail themselves of this opportunity to pursue the study of their special subjects by prolonging their visit in the city, or

by establishing themselves with their families at one of the many seashore resorts which are close at hand.

To the stranger in Boston the places of interest are so numerous and embrace such a variety of different subjects that a choice must be made to suit the individual. Opportunities will be given to visit the different places of historic interest under the leadership of competent guides provided by the Committee of Arrangements. The Old State House, Faneuil Hall, Kings Chapel and Old South Church, the Granary Burying Ground, the Common, and many other historic spots may thus be seen. Special facilities will also be given to the members of the Association and their guests to enjoy the treasures of the Museum of Fine Arts, and the wonderful mural paintings of Abbey, Sargent and Chavannes in the Boston Public Library.

The Navy Yard at Charlestown will be thrown open to the members of the Association, and special facilities will be provided for the inspection of its many points of interest. Here the historic frigate *Constitution* lies at rest after the many years of service which gained for her the title of "Old Ironsides." At the time of the session a number of modern warships from the North Atlantic Squadron will be stationed here.

For the benefit of the ladies who will accompany the members of the Association a special series of excursions and amusements will be arranged during the hours of the section meetings. There will be trolley rides to Cambridge, Lexington, Concord, and other places of interest in the vicinity of Boston, and automobile and coaching trips through the wonderful Metropolitan Park System which surrounds the city on every side. Sea bathing may be enjoyed at Revere Beach and Nantasket, the seashore resorts which form a portion of the Park System, or excursions may be made by steamboat down the harbor and along the shores of Massachusetts Bay, to Nahant and Salem, or to Plymouth and Cape Cod. No one need hesitate to bring his wife with him to the Boston session for fear that time will hang heavy on her hands. A committee of Boston ladies has been formed to take in charge the arrangements for the comfort of the visiting ladies, and to provide for their entertainment. A rest room will be set apart for the ladies at the general meeting-place of the Association, where everything will be provided that can contribute to their comfort and convenience.

Longfellow House in Cambridge, the home of the poet Longfellow.

It must not be forgotten that Boston stands at the gateway of the greatest summer playground of the country. Expeditions to the coast resorts of the north or south shores of Massachusetts, to the rugged coast of Maine, or to the woods and hills of the White Mountains, can easily be arranged. There are undoubtedly many members of the Association who will make the Boston session but an incident in a vacation for themselves and their families among the mountains or beside the sea. The Committee on Transportation has succeeded in securing special privileges in the way of an extension of time during which the return tickets will be accepted by the railroads, and many will avail themselves of these advantages. To those who wish to go abroad for their vacation the opportunity is also given by many steamship lines which run from Boston to England and the Continent.

The entertainments which will be offered to the members of the Association and to the ladies and guests who may accompany them are on a most extensive scale. The invitations to the American Medical Association to come to Boston for its session of 1906 were given by the Massachusetts Medical Society and the Harvard Medical School. These invitations, however, have received the unanimous support of the people of New England. Not only by giving financial assistance, but by the expenditure of a large amount of thought and time and trouble the members of the medical profession, the ladies of Boston, and many public spirited men who are not members of the profession, have joined in the preparations for this great convention.

On Tuesday, Wednesday and Thursday afternoons the grounds of the new Harvard Medical School buildings will be devoted to the entertainment of the visitors. There will be music in the central court, and tea and light refreshments will be served by the young ladies of Boston on the terraces. Here the members who have been attending the meetings of their sections in the halls and amphitheaters of the different buildings will spend a restful hour with their friends or wander through the long corridors and spacious laboratories.

On Wednesday evening a reception and promenade concert will be given to the President and to the members and guests of the Association, by the medical profession of New England. This reception will be held in Mechanics Hall, where many thousands of guests can be accommodated. A special attraction which is promised is the singing of a trained chorus of one hundred physicians, which will probably be unique in the annals of the Association.

To complete the arrangements for the comfort and convenience of the members who attend the 1906 session, a special "Guide Book to Boston" has been prepared expressly for this occasion and will be issued gratuitously to every member on registration, together with the official program and the unique and beautiful members' badge which has been designed for the Boston session. The Guide Book contains about two hundred pages and is profusely illustrated with views of historical and modern interest. It will provide information concerning the many places of historical interest in Boston and its suburbs, and special attention has been devoted to hospitals and other places of interest to the medical profession. Four maps and a number of lists of hotels, theaters, restaurants and recreation places will be included. It is hoped that this Guide Book may serve to make the visit in the city more enjoyable, and that it may also constitute an agreeable souvenir of the Boston session of the American Medical Association.

TRANSPORTATION.

Favorable Railroad Rates Secured from All Parts of the United States—Sight-Seeing Opportunities.

The Committee on Transportation of the American Medical Association makes the following announcement:

Arrangements for reduced rates on railroad transportation for the Boston session of the American Medical Association have been secured from nearly all of the passenger associations of the country. These rates will vary according to the different starting points, and the arrangements for each district will be announced in detail. It is hoped, however, that a rate of approximately a single fare, plus a fee of from 25 cents to $1, may be obtained for the round trip, with return extension privileges at a further expense of $1, up to June 30, from all important points.

Satisfactory and complete arrangements will be made at Mechanics Hall, Boston, for the validation of railroad tickets for members of the Association.

JOHN C. MUNRO, Chairman.

NEW ENGLAND PASSENGER ASSOCIATION.

(Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut.)

The New England Passenger Association announces: Within a radius of one hundred and fifty miles or less, convention rates. Between the one hundred and fifty miles and the termini (including the termini) of the New England Passenger Association, fare one way, plus 25 cents, for the round trip. No rate to be less than the convention basis applied at the one hundred and fifty mile radius. Tickets to be sold and good going in New England June 2-8 inclusive, good returning June 3-11 inclusive.

An extension of final return limit to June 30, 1906, inclusive on all tickets will be granted, provided they are deposited with the joint agent not later than June 11 and a fee of $1 paid at time of deposit.

On tickets sold from Pacific Coast points by lines in Trans-Continental Passenger Association an extension of final return limit to leave Boston not later than midnight of Aug. 31, 1906, will be granted, provided tickets are deposited with joint agent not later than June 11 and a fee of $1 paid at the time of deposit, and provided further that all other joint agency requirements, form of ticket, etc., are complied with. Further details and form of ticket to be announced later.

The Old State House, State Street, now a museum of Colonial antiquities.

TRUNK LINE ASSOCIATION.

(New York, New Jersey, Pennsylvania, Delaware and West Virginia.)

This association authorizes one first-class fare, plus $1, for the round trip; tickets to be sold and good, going, June 1 to 6; returning, leaving Boston to June 11 inclusive. The extension of return limit is to be under same conditions as above.

CENTRAL PASSENGER ASSOCIATION.

(Ohio, Michigan, Indiana and part of Illinois.)

This association grants the same rates and same conditions of extension. Ironclad tickets to be sold June 2, 3, 4 and 5, passengers not to reach gateways of the New England Passenger Association earlier than June 2, nor to arrive in Boston later than June 8. Tickets via New York allow stopover there.

The Richelieu & Ontario Navigation Company advise that on presentation of rail excursion ticket to agent of R. & O. N. Co. at Toronto, or to purser on board steamer, same will be accepted on payment of following arbitraries: Toronto to Montreal, $6.50; Kingston or Clayton to Montreal, $3.50.

TRANS-CONTINENTAL PASSENGER ASSOCIATION.

(Pacific Coast States.)

Members from Pacific Coast may avail themselves of either or both of the following sets of rates and conditions:

First: Account of Knights of Columbus, New Haven, Conn., June 3-9, 1906, excursion tickets will be sold from California May 25, 26 and 27, and from North Pacific Coast points and Spokane May 24, 25 and 26, to New Haven, Conn., and return, with going transit limit June 9, 1906, and final return limit Aug. 31, 1906, at the following rates and on the following conditions.

Rates from California via direct routes to be made on basis of one thirty-day first-class fare; to points east of eastern terminals of T. C. P. A., rates to be made on basis of one thirty-day first-class fare to T. C. P. A. eastern terminals, added to excursion fares authorized east thereof.

Examples of thirty-day fares from California.

To Chicago	$72.50
To St. Louis	67.50
To Memphis	67.50
To New Orleans	67.50
To Omaha	60.00
To Kansas City	60.00
To St. Paul	70.00

Rates from North Pacific Coast points via direct routes to be made on basis of $10 higher than the lowest first-class limited fare; to points east of eastern terminals of T. C. P. A., rates to be made on basis of $10 higher than the lowest first-class limited fare to T. C. P. A. eastern terminals, added to excursion fares authorized east thereof.

Examples of rates from North Pacific Coast common points: Portland, Oregon, Seattle and Tacoma, Washington, Vancouver and Victoria, B.C.:

To Chicago	$71.50
To St. Paul	60.00
To St. Louis	67.50
To Omaha	60.00
To Kansas City	60.00

Rates from Spokane, Washington to St. Paul, $52.50; Missouri River common points, Omaha to Kansas City inclusive, $52.50; to St. Louis, $60; to Chicago, $64.

Such rates to apply over same diverse routes west of T. C. P. A. eastern terminals, Chicago, St. Louis, Memphis, New Orleans and St. Paul, as the direct routes nine months' tourist rates apply. East of said terminals routing to conform to authority extended by the eastern lines and promulgated by chairman T. C. P. A.

For tickets from California via direct route one way, and via Portland, Ore., in opposite direction (using either Shasta Route or S. F. & P. S. S. Co. between Portland and San Francisco), rates from San Francisco, Tracy, Lathrop, Stockton, Sacramento, Redding and their intermediates, will be $13.50 greater than rates for tickets via direct routes both ways.

Tickets to be good going from starting point only on date of sale. East of T. C. P. A. eastern terminals tickets to be limited going and returning in conformity with regulations prescribed in eastern lines.

If members avail themselves of above they will require to rebuy at New Haven to Boston and return to New Haven, and their trip to and from Boston should be regulated according to the conditions of the New Haven tickets.

Second: Regular nine months' tourist rates, approximating

two cents per mile in each direction, or about one fare and one-third for the round trip, are in effect daily from California and North Pacific Coast common points to Chicago, Kansas City, Mo., Memphis, Minneapolis, New Orleans and St. Louis.

The following are examples of the rates over direct routes from California and North Pacific Coast common points:

From.	To.	Rate.
California and North Pacific Coast and common points	Missouri River points named and return	$ 90.00
California	St. Paul and return	105.00
North Pacific Coast points	St. Paul and return	90.00
California and North Pacific Coast common points	Chicago and return	110.00
California and North Pacific Coast common points	St. Louis and return	102.00
California	Memphis and return	102.00
North Pacific Coast points	Memphis and return	111.60
California	New Orleans and return	102.00
North Pacific Coast points	New Orleans and return	117.00

Proportionately higher rates are made to New York, Philadelphia, Washington, Boston, Montreal, etc.

The nine months' rates apply only to what are known as the eastern gateways of the association, such as those named. Agents will advise as to the eastern points named above to which it will be most advantageous to purchase nine months' tickets in rebuying to place of meeting. These nine months' tourist tickets are sold only from California, Nevada, Oregon, Washington, and west of and including Mission Junction B. C.; also from what are known as Kootenay common points, namely, Nelson, Rossland, Sandon, Kaslo and Grand Forks, B. C.

Reports from the southern passenger associations will be published later.

For special trains, see about the eighth page following this.

Bunker Hill Monument, Charlestown.

THE BOSTON SESSION.

Announcement of Headquarters and List of Hotels, with Prices.

While Boston is liberally supplied with hotels of the first class, many of which are in the immediate neighborhood of the meeting places selected by the Committee of Arrangements for the annual session of the American Medical Association, June 5-8, 1906, the Committee on Hotels deems it wise to bring to the notice of those expecting to attend, the advisability of securing accommodations well in advance, since the time chosen for the session is not far from the commencement days of Harvard, Tufts, Boston University, and the Massachusetts Institute of Technology, and during the same week it is expected that Christian Scientists to the number of some thousands will visit Boston to open a new "temple." The committee urges members of the Association, therefore, not to postpone too long the securing of rooms, and it engages to act in the matter for all who will make their desires known; but the final engagement must be made in all cases by the applicant directly with the hotel managers.

In addition to the hotels included in the list below are many of perfect respectability, but not of such excellence as to entitle them to be rated as of the first class.

LIST OF HOTELS WITH PRICES.

The following are the hotels included in the first class, with terms, and the number for whom it is estimated that there will be accommodations at the time of the session:

ADAMS HOUSE, Washington Street. European plan. Single rooms, without bath, $1.50 to $4 per day; with bath, $2.50 to $4. All rooms cost $1 additional when occupied by two persons. Accommodations, 200.

AMERICAN HOUSE, Hanover Street. European plan, $1 to $4 per day. Accommodations, 200.

BELLEVUE, Beacon Street. European plan. Single rooms, $1.50 to $2.50 per day; with private bath, $3 to $5. Double rooms, $2 to $3 per day; with private bath, $4 to $6. Accommodations, 150.

BRUNSWICK, Boylston Street. American plan. Rooms, without bath, $5 per day; with bath, $6. Accommodations, 300.

The Brunswick has been chosen headquarters for the Section on Surgery and Anatomy.

BUCKMINSTER, Commonwealth Avenue and Beacon Street. American and European plans. American: $4 per day, European, $2. Accommodations, 40.

CARLTON CHAMBERS, 1138 Boylston Street. European plan. Single rooms, without bath, $1.50 per day; with bath, $2. Double rooms, without bath, $3, per day; with bath, $4. Accommodations, 50.

CECIL, Washington Street. European plan. Single rooms, $1 and upward per day; for two persons, $2 and upward; with bath, $1.50 to $4. Double rooms, with bath, $2.50 to $5. Accommodations, 75.

COMMONWEALTH CHAMBERS, Bowdoin Street. European plan. Rooms, with hot and cold water and free public bath, $1 and $1.50 a day for one person; $2 and $2.50 for two persons. Rooms with private bath, $1.50 to $2 for one person, $2 to $2.50 for two persons. Accommodations, 175.

COPLEY SQUARE HOTEL, Huntington Avenue and Exeter Street. European plan. Rooms, $1.50, without bath, to $3 and $4 with bath, according to number of persons. Accommodations, 200.

The Copley Square has been selected as headquarters for the Sections on Obstetrics and Diseases of Women and on Pathology and Physiology.

CRAWFORD HOUSE, Scollay Square. European plan. Single rooms, with two persons in a room, $2 to $3 per day. Accommodations, 75.

ESSEX, Atlantic Avenue. European plan. Single rooms, $1.50 and upward; with bath, $2 and upward.

HEMENWAY CHAMBERS, Westland Avenue. European plan. Single rooms, with bath, $1.50 to $3 per day. Double rooms, with bath, $2.50 and $4.50. Three rooms, with bath, $4 and upward. Accommodations, 75.

LANGHAM, Worcester and Washington streets. European and American plans. European plan, $1 and upward per day. American plan, single rooms, $2 per day; single rooms, with two persons, $3. Accommodations, 100.

LENOX, Exeter and Boylston streets. European plan. Single room, without bath, $2.50, to $3 per day; with bath, $4 and $5. Accommodations, 50.

The Lenox has been chosen as headquarters for the Section on Ophthalmology.

LEXINGTON, 13 Boylston Street. European plan. Single rooms, $1.50 to $2 per day; for two persons $2.50 to $3. Accommodations, 75.

NOTTINGHAM, Copley Square. European plan. Single room, $1 and $1.50 per day; with bath, $2; two persons, without bath, $2 and $2.50; with bath, $3. Accommodations, 150.

The Nottingham has been selected as headquarters for the Sections on Diseases of Children and on Cutaneous Medicine and Surgery.

OXFORD, Huntington Avenue. American and European plans. Singue rooms, $1, $1.50 and $2 per day. Accommodations, 100.

The Oxford has been chosen as headquarters for the Section on Pharmacology.

PARKER HOUSE, School Street. European plan. Single rooms, without bath, $1.50 to $3 per day; for two persons, $2.50 to $4.50. Single rooms, with bath, $2.50 to $4; for two persons, $4 to $6. Accommodations, 75.

QUINCY HOUSE, Brattle Street. European plan. Rooms, $1 per day and upward. Accommodations, 300.

REVERE HOUSE, Bowdoin Square. European plan. Single rooms, $1 per day; for two persons, $1.50; with bath, $2; for two persons, $3, with parlor and bath, for two persons, $5. Accommodations, 200.

SOMERSET, Commonwealth Avenue. European plan. Single rooms, $2.50 per day; with bath, $3. Double rooms, $3.50; with bath, $4. Accommodations, 100.

The Somerset has been chosen as headquarters for the Section on Practice of Medicine.

THORNDIKE, Boylston Street. European plan. Single rooms, with detached bath, $1.50 per day and upward (a few single rooms at $1.00); double rooms, with detached bath, $2 and upward; single, with connecting bath, $2 and upward; double, with connecting bath, $3 and upward; suite of two chambers and bath (or parlor, chamber and bath), $5 and upward. Accommodations, 125.

The Thorndike has been chosen as the headquarters for the Sections on Hygiene and Sanitary Science and on Laryngology and Otology.

TOURAINE, Boylston Street. European plan. Single room, without bath, one person, $3 per day; two persons, $4.50; double, with bath, one person, $4 to $6; two persons, $5.50 to $8. Accommodations, 40.

The Touraine has been chosen as the headquarters for the Section on Nervous and Mental Diseases.

UNITED STATES HOTEL, Beach Street. American plan; two in a room, $2.50 per day and upward for each person. European plan, two in a room, $1.00 and upward, for each. Accommodations, 150.

VENDOME, Commonwealth Avenue. American plan. Single rooms, without bath, $5 per day; with bath, $6. Accommodations, 200.

The Vendome has been chosen as the headquarters for the General Officers.

VICTORIA, Dartmouth Street, corner Newbury. European plan. Single rooms, with use of bath, $2 per day and upward; with private bath, $3.50; double, with use of bath, $3 and upward; with private bath, $4.50 and upward. Accommodations, 50.

WESTMINSTER, Copley Square. European plan. Single rooms, $2 per day; with two persons, $3 and upward; three-room apartments, $9 to $12. Accommodations, 50.

The Westminster has been chosen as the headquarters for the Section on Stomatology.

YOUNG'S HOTEL, Court Square. European plan. Single rooms, without bath, $1.50 to $2 per day; for two persons, $2.50 to $4; with bath, $2.50 to $4.50; double room with bath, $4 to $7.

The Boston Public Library, Copley Square. A reception to the members of the Association will be given by the Trustees of the Library, and special facilities will be provided daily for the benefit of the members of the Association.

The following hotels are within a few minutes' walk of the general meeting places; the others are not more than 15 minutes' distance by trolley cars:

Brunswick.
Carlton Chambers.
Copley Square.
Hemenway Chambers.
Lenox.
Nottingham.
Oxford.
Somerset.
Thorndike.
Touraine.
Vendome.
Victoria.
Westminster.

The following hotels have been selected as headquarters for the general officers and for the sections:

General Officers	Vendome.
Practice of Medicine	Somerset.
Obstetrics and Diseases of Women	Copley Square.
Surgery and Anatomy	Brunswick.
Hygiene and Sanitary Science	Thorndike.
Ophthalmology	Lenox.
Diseases of Children	Nottingham.
Stomatology	Westminster.
Nervous and Mental Diseases	Touraine.
Cutaneous Medicine and Surgery	Nottingham.
Laryngology and Otology	Thorndike.
Pharmacology and Therapeutics	Oxford.
Pathology and Physiology	Copley Square.

ACCOMMODATIONS NEAR OCEAN.

Many members of the Association from the interior states, away from the ocean, may be glad to learn that arrangements have been made, if a suitable number can be got to take rooms, for from three to five hundred members at Winthrop Beach, directly on the ocean, and thirty minutes' ride from Boston by boat and rail or by trolley. The rates will be on the American plan, from $2 to $3.50 a day, according to accommodation, but the secretary of the Hotel Committee must be notified at the earliest practicable moment by those members who wish to obtain these accommodations, for these houses are not ordinarily opened until later in the season, and will have to be opened especially for this occasion. This is an excellent opportunity to enjoy the sea air and view, and yet to be within a few minutes travel of the Association headquarters in the city.

BOARDING AND LODGING HOUSES.

The Committee on Hotels and Transportation has secured a list of 521 private houses where board and lodging can be secured. Many of these houses are in the neighborhood of the general meeting places. These, and many more still to be secured, will soon have been critically inspected and rated. The committee will gladly act for those who desire its assistance in securing rooms and board in these houses. A list of them with rates will be furnished in a later number of THE JOURNAL.

RESTAURANTS.

By reason of the fact that many thousands of persons, residing elsewhere, conduct their business in Boston, the city is unusually well supplied with restaurants, which are equal to all possible demands on them. These are situated in all parts of the city. Naturally the greater number of them are located in the business section, but there are many in the neighborhood of the general meeting places. Ample accommodations will, therefore, be provided in a sufficient variety to suit all.

CHARLES HARRINGTON, Chairman.
DAVID D. SCANNELL, Secretary, 8, the Fenway.
Committee on Hotels and Transportation.

MEETING PLACES.

Ample and Comfortable Quarters Provided for the Various Meetings and Exhibits.

As will be seen by a glance at the following list, the accommodations selected for the meetings of the different sections, for the general sessions of the Association, and for the exhibits, will be unusually comfortable and convenient of access from the railroad stations and the hotels and headquarters of the different sections.

Mechanics Hall, which will be the central meeting place, and which will contain the Bureau of Information and Registration, Postoffice, Telegraph Office, Railroad and Theater Ticket Offices, the Commercial Exhibit, and a special rest room for ladies, is situated on Huntington Avenue, close to the railroad stations and the principal hotels. Here, also, the opening session will be held on Tuesday morning and a reception and promenade concert on Wednesday evening. From this point the other meeting places are all readily accessible; distributed as they are along Huntington Avenue from its junction with Boylston Street at Copley Square to Longwood Avenue, where the new buildings of the Harvard Medical School will provide acommodations for the Scientific Exhibit and for a number of the section meetings. An extra service of

electric cars, both ways, on Huntington Avenue, will be provided for the accommodation of the members of the association.

The large sections on medicine and surgery will hold their meetings in the halls in the vicinity of Copley Square. The section on Obstetrics and Diseases of Women will meet at Chickering Hall, near Massachusetts Avenue, and the other sections in the lecture rooms of the Tufts College Medical School, a short distance further on, or in the new Harvard Medical School. A special restaurant will be opened at Symphony Hall, Huntington Avenue and Massachusetts Avenue, where members may obtain their lunch without returning to their hotels. Jordan Hall, near Massachusetts Avenue, will be used for the evening sessions on Tuesday and Wednesday, and for the first meeting of the section on Surgery and Anatomy on Tuesday afternoon.

Special luncheon restaurant for the A. M. A. ..... Symphony Hall, Huntington and Mass. ave.

SECTIONS.

Practice of Medicine, Y. M. C. A. Hall, Boylston and Berkeley sts. Wednesday a. m. (Joint Session with Surgery), New Old South Church, Boylston and Dartmouts sts.

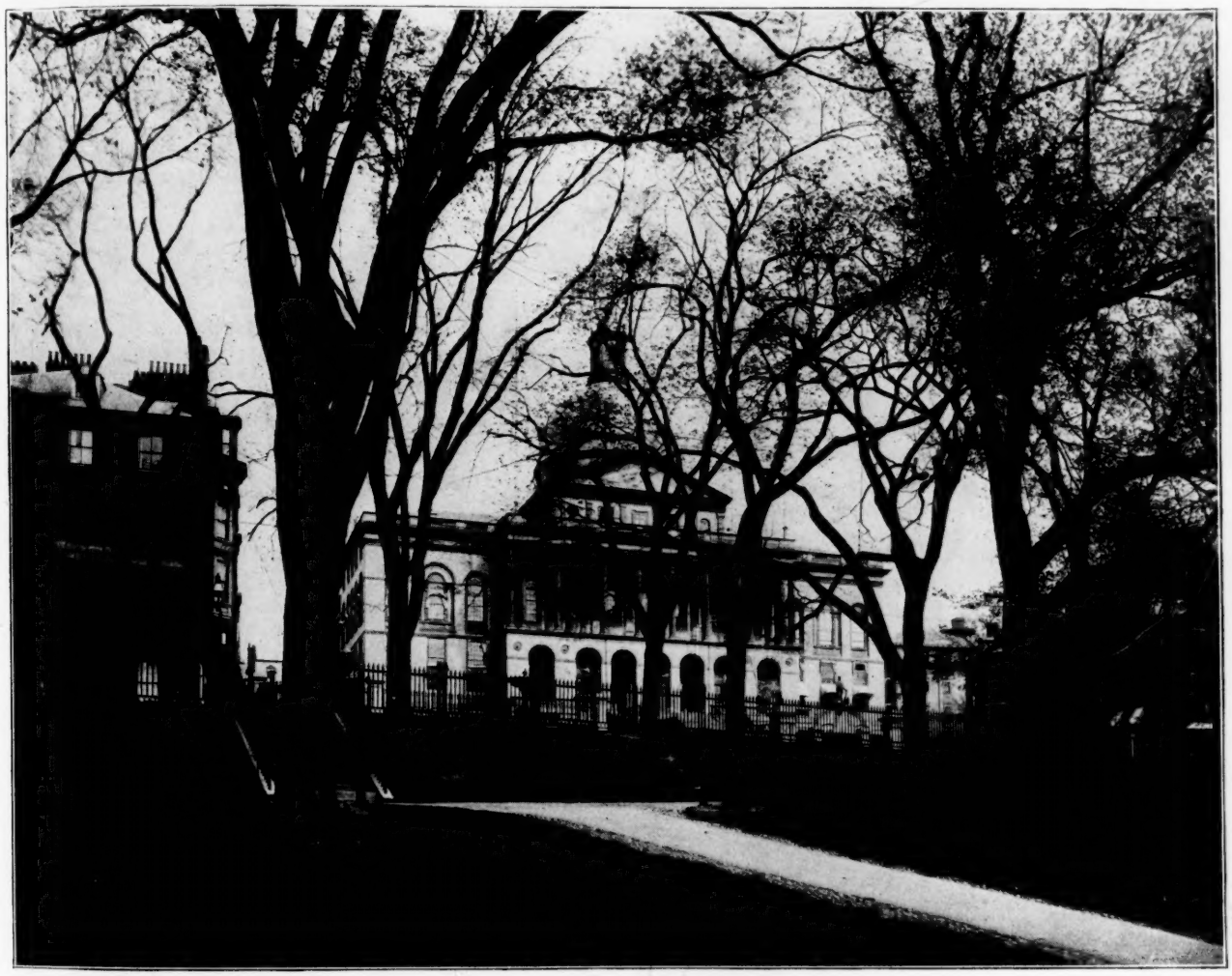
Obstetrics and Diseases of Women, Chickering Hall, Huntington ave., near Massachusetts ave.

Surgery and Anatomy, Tuesday p. m., Jordan Hall, Huntington ave., near Massachusetts ave.
Wednesday a. m. (Joint Session with Medicine), New Old South Church, Boylston and Dartmouth sts.
Wednesday, Thursday and Friday p. m., Huntington Hall, Walker Bldg., Boylston st.

Hygiene and Sanitary Science ... Tufts College Med. School, Huntington ave.

Ophthalmology ..... New Harvard Med. School, Longwood ave.

Diseases of Children ..... New Harvard Med. School, Longwood ave.



The State House of Massachusetts, on Beacon Hill, overlooking Boston Common.

MEETING PLACES.

	Halls.	Location.
OPENING SESSION	Mechanics' Hall,	Huntington avenue.
Registration and Bureau of Information		
PostOffice, Telegraph and Telephone		
Railroad and Theater Ticket Offices		
Commercial Exhibit		
Clinical Exhibit		
Public Health Exhibit		
Ladies' Rest Room		
PRESIDENT'S RECEPTION		
House of Delegates	Boston Medical Library,	Fenway.
General Sessions	Jordan Hall,	Huntington ave.
Army Hospital Exhibit		Huntington ave.
Scientific Exhibit	New Harvard Med. School,	Longwood ave.
Afternoon Teas	New Harvard Med. School,	Longwood ave.
Stomatology	Tufts College Med. School,	Huntington ave.
Nervous and Mental Diseases	New Harvard Med. School,	Longwood ave.
Cutaneous Medicine and Surgery.	New Harvard Med. School,	Longwood ave.
Laryngology and Otology	New Harvard Med. School,	Longwood ave.
Pharmacology and Therapeutics ..	Tufts College Med. School,	Huntington ave.
Pathology and Physiology	New Harvard Med. School,	Longwood ave.

The Boston Medical Library Building on the Fenway, will be set apart for the House of Delegates, and may most conveniently be reached by electric cars to the corner of Massachusetts Avenue and Boylston Street.

The convenience and comfort of the members of the different sections at their several meeting places will be looked after by special reception committees of Boston members of the Asso-

ciation, who will be on hand during the meetings to provide for any unexpected need that may arise.

Special American Medical Association Restaurants.

NEW MEDICAL SCHOOL RESTAURANT.

Arrangements will be made to install a caterer at the new Harvard Medical School buildings, in order that the members who are in attendance at section meetings in these buildings may obtain their luncheon there if they so desire. A table d'hote lunch, costing about 60 cents, will be served on Tuesday, Wednesday and Thursday from 12 to 2 p. m.

SYMPHONY HALL RESTAURANT.

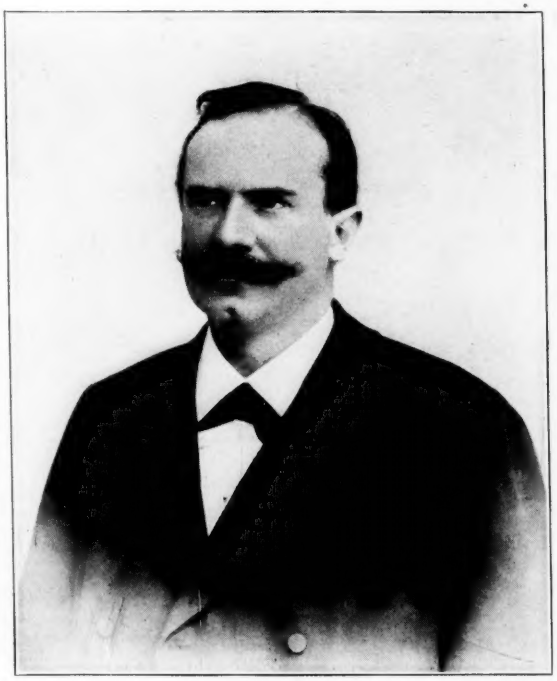
On Tuesday, Wednesday, Thursday and Friday, Symphony Hall, at the corner of Massachusetts and Huntington avenues, will be open to the members and guests of the Association from 12 to 2 o'clock. Light refreshments, beer and light wines will be obtainable and smoking will be permitted.

ENTERTAINMENTS.

Receptions, Concerts, Entertainments, Excursions and Afternoon Teas for the Pleasure of Visitors.

It is the purpose of the Boston Committee to facilitate the entertainment of the members of the Association and their friends in every way during and after the time of the session. Entertainments will be arranged for members in the afternoon and evenings, and for ladies during the entire time of the session.

The afternoon teas at the Harvard Medical School will be held on Tuesday, Wednesday and Thursday afternoons, from 4 to 6 o'clock. On Tuesday evening, after the evening session in Jordan Hall, a reception will be given to the members of the Association by the trustees of the Boston Museum of Fine Arts in the Museum in Copley Square. The trustees of the Boston Public Library have also invited the members of the Association to a reception in the Library Building to meet the Mayor of Boston on Tuesday evening at 9 o'clock.



Professor Rosthorn.

On Wednesday evening, at the close of the General session in Jordan, Hall, a reception and promenade concert will be given in Mechanics Hall by the medical profession of New England, to the President, members and guests of the American Medical Association from 9 to 12 o'clock. A light supper will be served and there will be dancing. The Commercial Exhibit will be open during the evening on this occasion.

Thursday evening arrangements have been made to reserve the theaters of Boston for the members of the American Medical Association, and special performances will be given in a number of them. The "Pop Concert" at Symphony Hall will also be reserved for the members of the Association on Thursday evening, and an orchestra, composed of members of the Boston Symphony Orchestra, will play popular music. Smoking will be permitted and light refreshments may be obtained.

Boston Public Library.

The trustees of the Boston Public Library extend a cordial invitation to the members of the Association to visit the library at any time between 9 a. m. and 5 p. m. during the meeting. A special collection of pictures of medical subjects and portraits will be on exhibition, and arrangements will be made to send personally conducted parties of visitors over the library at hourly intervals throughout the day.

A reception to the members of the Association will also be given by the trustees on Tuesday evening from 9 to 11 o'clock to meet his Honor, the mayor of Boston.

Seeing Boston.

Walking parties, with competent guides, will be made up every day, at frequent intervals, to conduct visitors through the historical portions of Boston, visiting the old State House, the old Granary Burying Ground, King's Chapel, the old South Church, Faneuil Hall, Paul Revere's house, the old North Church, and other points of interest.

Special "Seeing Boston" cars will leave Park Square at frequent intervals, enabling visitors to obtain a comprehensive view of Boston and its suburbs, visiting the oldest parts of the city, Charlestown, Somerville, Cambridge, Back Bay and Brookline.

Automobile and coaching trips through the Metropolitan Park System may be arranged at the Bureau of Information.

Steamboat Excursions.

Harbor excursions by steamboat may be made to the different places of interest in Boston Harbor and Massachusetts Bay. Bass-Point and Nahant, Nantasket Beach, Plymouth, Provincetown and Gloucester offer attractive expeditions.

The steamer *Monitor* will visit the various harbor institutions daily and will carry free the members of the Association to the limit of the capacity of the boat.

The battleships of the United States Navy, stationed at the Charlestown Navy Yard, and the ocean steamers of the Cunard line, in East Boston, will be open for inspection by the members of the Association. Bunker Hill Monument, the receiving ship *Wabash*, the new granite dry dock, the naval museum and the frigate *Constitution* offer other attractions in a visit to Charlestown.

Trolley and Rail Excursions.

Norumbega Park at Riverside, on the Charles river, is reached by electric cars in three-quarters of an hour, and is a popular resort for canoeing, boating, and such amusements.

Sea bathing, "Rhode Island clambakes" and fish dinners are provided at Revere Beach, a part of the Metropolitan Park Reservation, which can easily be reached within an hour's time by rail or trolley. "Wonderland," a great amusement enterprise, which rivals Luna Park at Coney Island, will be open at the time of the session.

Excursions to Plymouth, under the supervision of Dr. Myles Standish, will be arranged for each day of the session, and will prove especially attractive to those who are interested in the history of the early settlement of New England and the landing of the Pilgrims.

Lexington and Concord will be reached by special trolley trips, and Newburyport, Salem and Marblehead by rail.

Visits to New England Colleges.

Special arrangements will be made for visits to the New England colleges. At Harvard College, in Cambridge, guides will be provided by the college authorities, and afternoon tea will be served in Phillips Brooks' house, or the Harvard Union, on one of the days of the meeting.

Radcliffe, Tufts and Wellesley Colleges are within easy reach. Yale, Brown, Dartmouth, Williams, Amherst, Clark and Smith Colleges can be visited in a day, and the University of Vermont, Bowdoin, Colby, and the University of Maine in a slightly longer time.

Clambake and Fish Dinner.

A Rhode Island clambake and fish dinner has been planned for the members of the Association in Crescent Park, Providence, R. I., on Saturday, June 9, the members leaving the south terminal station in the morning by a special train and returning in the afternoon.

Excursions to Other New England Resorts.

At the close of the session excursions to Nantucket Island, Newport, R. I., Isles of Shoals, Mt. Desert, the White Mountains, Plymouth and Gloucester, will be provided, and facilities will be given for the arrangement of trips to the other summer resorts of the New England Coast.

American Medical Association Outing Club.

Among the many pleasant trips out of Boston a nine days' tour in New Brunswick, Nova Scotia, Maine and New Hampshire should be among the most enjoyable. The party will visit for a day or two such resorts as St. John, New Brunswick, Digby, Nova Scotia, Bar Harbor, Maine, and Portsmouth, N. H., and touch for a short time the ports of Portland, Eastport and Lubec. Returning by rail the fine coast scenery north of Boston is seen at its best. The deep-sea fishing trip in Nova Scotia will afford unique sport for those members who reside inland.

Send stamp to Dr. Edward R. Campbell, Bellows Falls, Vt., for booklet describing trip.

Banquets.

The Section on Nervous and Mental Diseases has arranged for its annual banquet. "Smokers" have been arranged for the sections on Ophthalmology and on Laryngology and Otology.

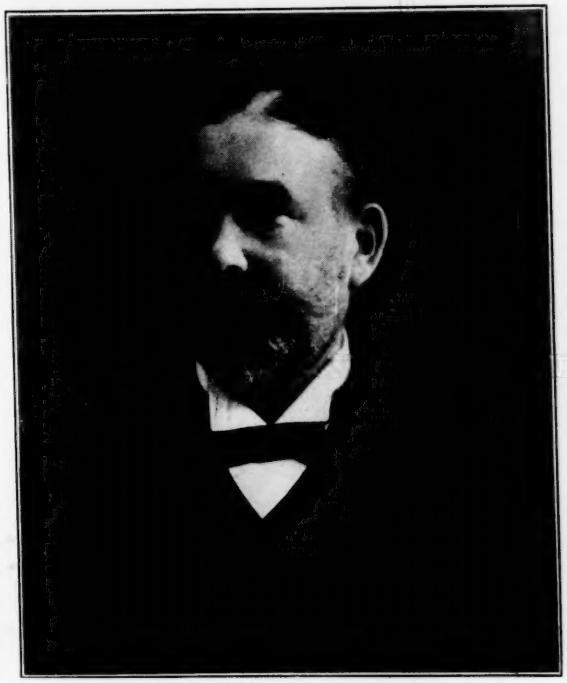
Other special section celebrations are to be arranged.

EXHIBITS.

An Unusually Complete Group of Pathologic, Clinical and Hygienic Expositions.

Commercial Exhibit.

The Commercial Exhibit in Mechanics Hall will be of great interest. The exhibits displayed will be of the highest character, and will include only such as conform to the standards of the American Medical Association. Books, apparatus, instruments and therapeutic agents which will be of interest and value to the profession will be shown. A special exhibit, which it is thought will appeal to many members of the profession, will include motor cars and carriages adapted to physicians' use.



Professor Max Joseph.

Scientific Exhibit.

The Scientific Exhibit, the program of which will be found elsewhere, will be housed in the spacious galleries of the Warren Anatomical Museum, and in the adjacent laboratories at the new Harvard Medical School.

Historical Loan Exhibition of Medical and Surgical Instruments.

As a portion of the Scientific Exhibit, a loan exhibit of medical and surgical instruments of historical interest will be collected for the Boston session. Dr. J. Collins Warren is chairman and Dr. Townsend W. Thorndike is secretary of the committee having this matter in charge.

It is felt that there are many instruments and collections of instruments now obsolete which would have great interest for the medical profession if gathered together and arranged in such a way as to show the evolution of the different instruments to-day in use. It is hoped that the instruments gathered for this meeting may serve as a nucleus for a permanent collection.

With the foregoing object in view, the committee extends to the readers of this article a cordial invitation to co-operate with them, either by advice as to where exhibits may be secured or by loaning those that they may have in their possession.

It is requested of those who send their collections to the exhibition for the session of the American Medical Association that they specify whether they desire to have their collections returned to them at the end of the meeting, or whether they will permit the committee to place them in a permanent collection.

All communications should be addressed to the secretary, Dr. Townsend W. Thorndike, 22 Newbury Street, Boston.

Clinical Exhibit.

A special feature of the Boston session will be the so-called Clinical Exhibit. It is proposed to establish in Mechanics Hall a series of demonstrations of the most recent methods of precision in clinical diagnosis, which may here be studied in active operation. Examinations of the blood, urine, sputum and other fluids, methods of diagnosis, bacteriologic and chemical, the use of the sphygmomanometer, the *x*-ray, cystoscopy and many other methods of diagnosis will be shown. At the hospitals, also, special programs of demonstrations and of operations will be provided during the time of the session for the benefit of the members of the Association.

Public-Health Exhibit.

The Public-Health Exhibit will be one of the utmost interest to the general public, as well as to students of hygiene and sanitary science. At Mechanics Hall a special collection of maps, plans, apparatus and other features of importance in sanitary science will be displayed, and this will be further supplemented by the exhibit of the Massachusetts State Board of Health installed in the Museum of Hygiene at the new Harvard Medical School.

Army Hospital Exhibit.

One of the most interesting and instructive features will be a completely equipped field hospital, which will be sent from Washington especially for the session of the Association by courtesy of the Surgeon-General.

The hospital will be equipped with all of the latest appliances known to medical and surgical science, and will be installed and administered by Company A of the Hospital Corps of the United States Army, under the command of Captain H. L. Gilchrist, assistant surgeon, assisted by First Lieutenant William T. Davis, assistant surgeon. This field hospital will be placed on Huntington Avenue, where it can be conveniently visited by members passing to and from their section meetings. It will cover about five acres of ground and will include among its fifty tents six wards, with a total of 108 beds of the latest design, with mosquito-bar attachment; dispensary and operating rooms; kitchen, mess-tents and administrative offices.

Demonstrations will be given of ambulance and first-aid drills, field exercises, and all of the details of the operation of an army hospital in time of war.

A conspicuous feature of this exhibit will be the compactness and portability of the hospital equipment, and the ease and rapidity with which it can be moved from place to place, or expanded to meet the requirements of an emergency.

COMMITTEE OF ARRANGEMENTS.

General Committee.

Dr. Herbert L. Burrell, Chairman, 22 Newbury Street, Boston.
Dr. Robert B. Greenough, Secretary, 8 The Fenway, Boston.

Dr. George B. Shattuck,
Dr. Frank B. Harrington,
Dr. Reginald H. Fitz,
Dr. Elliott P. Joslin,
Dr. Charles Harrington,
Dr. David D. Scannell,
Dr. J. Collins Warren,
Dr. John C. Munro,
Dr. Charles S. Minot,
Dr. Wm. T. Porter.

Subcommittees.

COMMITTEE ON FINANCE.

Dr. George B. Shattuck, Chairman; Dr. Frank B. Harrington, Secretary; Dr. James B. Ayer, Treasurer.

COMMITTEE ON SECTION MEETING PLACES, GENERAL EXHIBIT, PRINTING AND PROGRAMS.

Dr. Reginald H. Fitz, Chairman; Dr. Elliott P. Joslin, Secretary.

Subcommittee on Section Meeting Places.—Dr. Horace D. Arnold, Chairman; Dr. Ralph C. Larrabee, Secretary.

Subcommittee on Scientific Exhibit.—Dr. W. T. Councilman, Chairman; Dr. Frank B. Mallory, Secretary.

Subcommittee on Historical Loan Exhibition of Medical and Surgical Instruments.—Dr. J. Collins Warren, Chairman; Dr. Townsend W. Thorndike, Secretary.

Subcommittee on Clinical Exhibit.—Dr. Richard C. Cabot, Chairman; Dr. Edwin A. Locke, Secretary.

Subcommittee on Public Health Exhibit.—Dr. Charles Harrington, Chairman; Dr. George B. Magrath, Secretary.

Subcommittee on Commercial Exhibit.—Dr. Joshua C. Hubbard, Chairman; Dr. R. L. DeNormandie, Secretary.

Subcommittee on Printing, Programs and Guide Book.—Dr. Robert B. Osgood, Chairman; Dr. F. C. Kidner, Secretary.

COMMITTEE ON HOTELS AND TRANSPORTATION.

Dr. Charles Harrington, Chairman; Dr. David D. Scannell, Secretary.

COMMITTEE ON ENTERTAINMENTS, BANQUETS, LADIES.

Dr. J. Collins Warren, Chairman, Dr. J. C. Munro, Secretary.

Subcommittee on President's Reception and Promenade Concert.—Dr. Francis S. Watson, Chairman; Dr. Richard F. O'Neil, Secretary.

Subcommittee on Afternoon Teas.—Mr. J. Grafton Minot, Chairman; Dr. Farrar Cobb, Secretary.

Subcommittee on "Pop Concert" and Symphony Hall Restaurant.—Dr. Samuel J. Mixter, Chairman; Dr. Lincoln Davis, Secretary.

Subcommittee on Banquets.—Dr. John G. Blake, Chairman; Dr. John T. Bottomley, Secretary.

Subcommittee on Theaters.—Dr. Morton Prince, Chairman; Dr. Percy Musgrave, Secretary.

Subcommittee on Excursions.—Dr. Harold Williams, Chairman; Dr. G. W. W. Brewster, Secretary.

Subcommittee on Public Library Reception.—Dr. Thomas Dwight, Chairman; Dr. Samuel Robinson, Secretary.

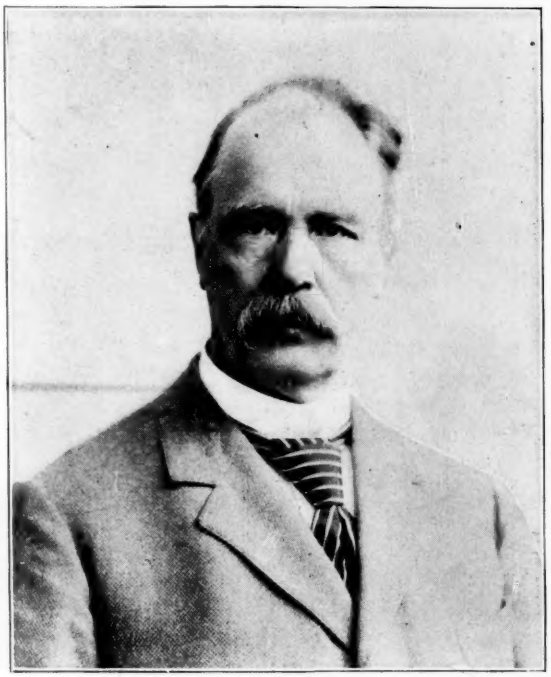
Subcommittee on New Medical School Restaurant.—Dr. Farrar Cobb, Chairman.

LADIES' COMMITTEE.

Mrs. Roger Wolcott, Chairman; Mrs. John C. Munro, Secretary.

COMMITTEE ON REGISTRATION, BADGES, BUREAU OF INFORMATION.

Dr. Charles S. Minot, Chairman; Dr. Wm. T. Porter, Secretary.



Professor Trendelenburg.

REGISTRATION.

Suggestions and Rules for the Guidance of All Who Will Attend the Session.

The registration department will be near the main entrance to the Exhibition Hall, at Mechanics Building on Huntington Avenue.

For admission to the different section meetings, exhibits and entertainments, it will be necessary for every member of the Association to register his name, and those of his guests, and to obtain the official badges provided by the Committee of Arrangements. *No one will be admitted to any meeting or entertainment without a badge!*

The registration department will be open from 8:30 a. m. to 5 p. m. on Monday, Tuesday, Wednesday and Thursday, June 4, 5, 6 and 7, and on Friday, June 8, from 9 to 10 a.m.

Members are requested to observe the following directions:

1. Each physician desiring to register will fill out a registration card.

2. Each member who has paid his annual dues in full will present his pocket card and this registration card at a window marked "Registration by Receipt."

3. The registration of members who have paid their dues, but who have lost their receipts, will require a moment or two extra time, while the records are consulted.

4. Members who have not yet paid their dues will present registration card and make payment at a window marked "Cash."

5. Each applicant for membership will present his registration card at a window marked "New Members Make Application Here," with a certificate that he is a member in good standing in his state society. [Every such prospective member, however, will save himself delay and annoyance by sending in his application before the session. All such letters should be *mailed not later than May 25* to the American Medical Association, 103 Dearborn Avenue, Chicago, as the records have to be packed and shipped to Boston early.]

6. Each member on registration will receive a badge, a copy of the Official Program, a Guide Book, and such other announcements as may be necessary.

7. The guests of members, either ladies or gentlemen, must be registered by name. A special registration card will be provided, to be filled out for each guest. These cards will be presented at a window marked "Guests," but only after the member has completed his own registration. A guest badge will be issued for each guest registered.

8. Members of the Massachusetts Medical Society, who are not yet members of the American Medical Association, will register their names at a special booth marked "Massachusetts Medical Society," in the entrance to the Exhibition Hall, where they will receive a special badge, admitting them to all meetings of the Association. Members of the Massachusetts Medical Society who are not members of the American Medical Association and who desire to become members may fill out registration cards and present themselves at the window marked, "New Members Make Application Here," referred to above. Certificates of membership in the Massachusetts Medical Society will be provided at this window for all members in good standing, and payment of the annual dues to the American Medical Association alone will be required. All members of the Massachusetts Medical Society are urged to avail themselves of this opportunity.

BUREAU OF INFORMATION.

A Bureau of Information will be maintained at the General Meeting Place in Mechanics Hall, where information with regard to hotels, transportation, registration, meeting places, exhibits, entertainments, theaters, etc., may be obtained. In connection with this bureau, the postoffice of the American Medical Association, telegraph and telephone offices, an office for the sale of railroad tickets for excursions from Boston, and an office for the sale of theater and concert tickets will be maintained. An emergency station, for the care of any members of the Association in need of medical attendance will also be placed in close proximity to the Bureau of Information. A large space will be set apart in the vicinity of the registration booths, where desks and tables will be found, and all the conveniences for a writing room.

POSTOFFICE AND TELEGRAPH.

Mail matter and telegrams addressed in care of the American Medical Association, Boston, will be sent direct to the postoffice in Mechanics Hall. Telegrams and special delivery letters will be forwarded from there to the hotels or other stopping-places of those whose addresses are recorded at the Registration Department or the Bureau of Information.

THE FOREIGN GUESTS.

Many Distinguished Medical Men Will Come from Abroad to Speak at Section Meetings.

The American Medical Association is to be honored by the presence of a number of distinguished guests at the Boston session. Many have already accepted invitations, and of some of these we present brief sketches below. Following is a list of the guests as far as now known:

Geh. Hofrat Prof. Dr. von Rosthorn, Heidelberg, Germany, will be the guest of the Section on Obstetrics and Diseases of Women. A photograph of him is given herewith.

Professor Dr. Dührssen, Berlin, Germany, will be a guest of this Section and will also address the Section on Hygiene and Sanitary Science.

Dr. Wesley A. Mills, McGill University, Montreal, Canada, will speak before the Section on Pathology and Physiology.

Dr. Max von Frey, Physiologisches Institut, Würzburg, Germany, will also be a guest of this Section.

Professor Max Joseph, Berlin, Germany, will speak before the sections on Cutaneous Medicine and Surgery and on Hygiene and Sanitary Science. A sketch of him appeared in THE JOURNAL, April 14, page 1125.

Herr Geheimrat Prof. F. Trendelenburg of Leipzig, Germany, will be the guest of the Section on Surgery and Anatomy.

Dr. Simon W. Tunstal, Vancouver, British Columbia.

Dr. Murray MacLaren, St. Johns, New Brunswick.

Dr. James Bell, Montreal, Canada.

Dr. George A. Peters, Toronto, Canada.

Dr. Alexander Primrose, Toronto, Canada.

Dr. George A. Armstrong, Montreal, Canada.

Dr. Francis J. Shepherd, Montreal, Canada.

Dr. Richard A. Reeve, Toronto, Canada, president British Medical Association.

MAX VON FREY.

Professor Max von Frey of Würzburg, Germany, born in Salzberg, Austria, in 1852, is a German of the Germans, of noble birth and courtly bearing. He was educated in the gymnasium of his native city, and carried on his medical studies in Freiburg, Leipzig and Vienna; he supplemented his medical studies with courses in mathematics and mechanics in the Polytechnic School of Munich.

He accepted the call of Leipzig University, where he became the assistant of Karl Ludwig, the physiologist, first as privat docent and then as adjunct professor. In that capacity he directed all of the laboratory work in physiology besides conducting extensive researches.

He was later called to the University of Zurich, in Switzerland, as professor of physiology and was associated with Justus Gaule.

On the death of Adolph Fick, head professor of physiology in the University of Würzburg, the question as to who should be invited to fill his place was no easy one. When they finally chose Max von Frey, the pupil and associate of the great master, Karl Ludwig, the news was received by physiologists the world over with hearty approbation. For the most part his researches and his publications have been on the problems of the circulatory system and the pulse, physiology of the muscular system and the special senses.

ALFRED DÜHRSSEN.

Professor Alfred Dührssen may be regarded as one of the best known modern German gynecologists. Physicians of the whole world are more familiar with his name than that of the older German gynecologists, who together with those of other countries have done the real work in building up this branch of medicine as a special science. There are two achievements which tend particularly to make his name so well known. First, the recommendation of the vaginal route for gynecologic operations, and second, the application of methods of rapid evacuation of the uterus in obstetrics.

It is somewhat difficult to give a sketch of the life of a man who is still in the prime of his years and from whom we may still expect new and progressive ideas. Still Dührssen can reflect with satisfaction on the past in regard to some of the operations devised by him. The rapid evacuation of the uterus in eclampsia, recommended by him among one of the first which lately is frequently put to Bumm's credit, has today invaded the clinics of even the most conservative obstetricians. On the other hand, it would seem wrong to judge the life work of a physician and teacher only by his improvements of operative technic. Dührssen's merit in medical science may be found to a great part in conservative obstetrics.

While teaching obstetrics for many years as first assistant to Gusserow he did his share to transform the municipal hospital, the Charité, into a modern clinic. Grown up in the antiseptic era, he was fortunate to take active part in the great work which the Berlin school of obstetrics aimed at and accomplished so thoroughly, namely, the formulation of exact indications, valid rules for the various obstetric operations, by which the practitioner should be guided. Highly esteemed by his hearers, he has by lecturing for many years to students and physicians, sown seed that has borne manifold fruits. His "Vade Mecum" is a brief but complete exposition of the teachings of the Berlin school of great value to the practitioner in obstetric emergencies.

Out of the great number of literary contributions published by Dührssen only a few can be mentioned here. Together with his teacher, Gusserow, he investigated the nature of the liquor amnii. Recognition of the absolute helplessness of the obstetrician in case of an insufficiently dilated os inspired in him the idea of deep cervical incisions. Confidence in antisepsis and his great gynecologic experience led him to evolve vaginal Cesarean section from the method of cervical incisions. Dührssen's method of iodoform gauze tamponade for combating postpartum hemorrhages has found many admirers.

Graduated in the year 1885 and soon after admitted to the teaching faculty as "privat docent," he received comparatively young the title of professor. The severe criticism to which he was subjected by the influential part of the profession, on account of his retroflexion operations, led him to establish his own policlinic and clinic in Berlin. There he commands a large patronage, which he places in a most liberal manner at the disposal of everyone, also of foreign physicians.

Dührssen has almost as many friends in America as in Germany, and all who have seen him operate or have listened to his lectures, will gladly renew this acquaintance.

Medical science should be international, and visits of eminent medical men from abroad will only further the mutual respect and inspire new ideas. America is the home of operative gynecology and welcomes Professor Dührssen most heartily as one of the foremost German exponents of operative gynecology.

ALFONS EDLER VON ROSTHORN.

Prof. Alfons von Rosthorn of Heidelberg is about 48 years old and is one of the best known and appreciated German gynecologists.

He was born in Vienna, Austria, and there received his

general and medical education. He first contemplated an academic career in the study of natural history, and was for over a year assistant to the well-known zoologist, Professor Klaus. He then took up medicine and served some time as assistant to Professor Langer in anatomy. Later he became *Operationszoegling* in the surgical clinic under Billroth for two years, and then went to Gratz as assistant in surgery to Woelfler. Next he returned to Vienna as assistant to Breisky, and then to Chrobak in obstetrics and gynecology, whence he was called to Prague in 1891 as successor to Schauta. He remained in Prague eight years, during which time a new clinic was built. During this period a considerable number of American physicians visited Prague and became acquainted with him. In 1899 he was transferred to Gratz at his own request, where he remained three years, when he accepted a very flattering call to Heidelberg and the honorary and prized title from the German government of "Geheimrath."

In addition to numerous contributions to the literature of his specialty in the special and general medical journals, Professor Rosthorn has written several books. In co-operation with Professor Chrobak, he has written the book on gynecology in Nothnagel's "System of Medicine." In Veit's "Handbook of Gynecology" and in von Winckel's "Handbook of Obstetrics" he has written important chapters. He has been associated with A. Martin in the publication of the *Monatsschrift fuer Geburtshilfe und Gynaekologie* for the last four years. He has devoted especial attention to normal and pathologic anatomy and is considered the first authority on the structure and diseases of the pelvic connective tissue.

Professor Rosthorn's long training in anatomy has helped to make him a good operator. He has adopted the radical operation for cancer of the uterus, and his large experience, controlled by an unsually careful judgment, make his opinion on this subject of much interest.

As a teacher, Rosthorn has won a reputation approaching that of his own early teacher, Billroth. While very strict and exacting, he inspires an enthusiastic attachment that has created for him a loyal band of disciples. He speaks English perfectly, with a slight English accent, having studied and lived some time in England when a student.

As a scientist and scholar, as an operator and teacher, as a man in close touch with the present achievements and tendencies in German medicine, Professor Rosthorn represents perfectly the best in his specialty in his present home, Germany, and in his native home, Germany-Austria.

MAX JOSEPH.

Max Joseph of Berlin was born Jan. 2, 1860, in Gerdauen, East Prussia. He studied at Königsberg, and there he won a faculty prize for his essay, "Zeitmesende Versuche ueber Athmungsreflexe." He graduated in 1883 and attained his specialistic training with Kaposi at Vienna. Later he became assistant to Westphal and Köbner in Berlin, and became intimately associated with the Berlin Physiological Institute, where he worked for three years under Gad and Fritsch. In 1888 we find him attached to the zoological station at Naples under Dohrn.

Since 1889 he established himself in Berlin as a specialist for skin diseases and soon won enviable reputation in his specialty, both as a teacher and writer. He conducts one of the most popular private clinics and histologic laboratory for skin diseases. The number of patients reaches from 75 to 100 on week days and comes up to the high-water mark of 150 to 200 on Sundays, when the laboring class attends in large numbers. This enormous material, which can compare only with some of the most popular clinics of the Hospital St. Louis in Paris, is amply and systematically utilized by Joseph by individual teaching, which he understands in a masterly way. There are always plenty of Americans attending these, who carry away with them the conviction that they had profited by their attendance at this unique clinic.

In 1898 he was sent to Norway at the expense of the Bose foundation for the study of leprosy, as a result of which he published his essay "On Visceral Lepra."

Joseph is a man of imposing physique, of pleasant address and winning attitude. As to his characteristics, he is modest and unassuming to a fault; sympathetic to his patients, true to his friends, and chiefly, wedded to his specialty. His many friends and admirers tender him herewith a hearty and well-deserved welcome to America.

WESLEY MILLS.

Prof. Wesley Mills of McGill University, Montreal, was born in Ontario, Canada, and received his preparatory education in the schools of that province. In the University of Toronto he took an extensive collegiate course, receiving from that institution the degrees of bachelor of arts and master of arts. He studied medicine at McGill University, from which institution he received the combined degree of doctor of medicine and master of surgery. He also received from the same institution the degree of doctor of veterinary surgery, and from London the degree of L.R.C.P. He is a fellow of the Royal Society (Canadian Branch), and is also a member of many learned societies in Canada.

Dr. Mills has been engaged extensively in medical research in McGill University, and was made professor in that institution in 1886, retiring from general practice at the time he entered on his professorship. Dr. Mills has made extensive contributions to medical literature. The majority of his writings deal with comparative anatomy, physiology and psychology. He has also contributed to the literature on the blood and blood-forming organs.

FRIEDRICH TRENDELENBURG.

Prof. Friedrich Trendelenburg is chief of the surgical clinic at the University of Leipsic, Germany. All who have had the pleasure of making his acquaintance in former years will be delighted to welcome him to our shores; those who will meet him for the first time will be glad to shake hands with the man who devised the world-famous "Trendelenburg posture."

Friedrich Trendelenburg was born in Berlin May 24, 1844. He is the son of Friedrich Adolf Trendelenburg, professor of philosophy at Berlin, who did so much for the advancement of German universities, and was one of the most esteemed scientists of his time. Professor Trendelenburg studied medicine in Edinburgh, Glasgow and Berlin, under Allen Thomson, Bernhard von Langenbeck and others. After taking his diploma as M.D. (1866), with a dissertation, "The Surgery of the Ancient Hindoos," he again visited Glasgow to see Lister. From 1868 to 1874 he was assistant to the surgical clinic at Berlin under von Langenbeck, the renowned surgeon, whose assistants were always in eager demand as professors of surgery at the various universities and clinics of Germany. During this period Trendelenburg devoted much time to experimental surgical research work on a basis of general pathology. Thus he demonstrated the possibility of infecting animals with diphtheria by means of transplanting diphtheritic membranes from the human fauces.

In 1874 he was made chief of the surgical division of the "Krankenhaus am Friedrichshain" in Berlin. In the following year he accepted a call to the University of Rostock to fill the chair of professor of surgery. Seven years later he was called to the University of Bonn, to succeed the famous Wilhelm Busch, also a pupil of von Langenbeck, and since 1895 he has occupied the chair of surgery at the University of Leipsic, succeeding Karl Thiersch, who had then just died, after twenty-eight years of splendid work.

Trendelenburg has contributed largely to surgical literature. Among his more elaborate works may be mentioned: "Diseases of the Neck and Their Operative Treatment," and "Injuries and Surgical Diseases of the Face." His essays, and those published from his clinic by his assistants, are legion. In his "Contribution to the Operations on the Air Passages," he describes his well-known tracheal tampon-canula.

In 1884 he published, through his first assistant, an article fully describing and illustrating the "Trendelenburg posture," (Beckenhochlagerung), which has so greatly facilitated operative work within the small pelvis. The posture was carried out for the first time after its conception at the surgical clinic in Bonn, 1883-84. Since then many operating tables, portable and otherwise, have been constructed here and abroad, provid-

ing for this posture. Trendelenburg himself designed one which was shown at the exhibition connected with the International Medical Congress at Berlin in 1890.

Now Trendelenburg comes to the United States "to learn," as he recently wrote to one of his friends here. He may be sure of a hearty welcome by the medical profession of America.

SPECIAL TRAINS.

Some of the Trains and Routes to Boston and Their Advantages.

NEW YORK CENTRAL SPECIAL.—The New York Central Lines will run a special train through to Boston without change by way of the Lake Shore and Michigan Southern, the New York Central and the Boston and Albany railroads. This train is to be made up with a specially fine equipment similar to that used on the Twentieth Century and the Lake Shore Limited, consisting of observation compartment cars, standard sleeping cars, dining and library cars. The train is to leave Chicago at 10:30 a. m., Sunday, June 3, and to arrive in Boston at 2 p. m., Monday, June 4. There will be allowed stop-overs at Niagara Falls, Put-in-Bay and Chautauqua, N. Y. Additional information may be secured from Mr. L. F. Vosburgh, General Western Passenger Agent, Room 529, La Salle Street Station, Chicago.

CANADIAN PACIFIC.—A combination route over the Wabash to Detroit, thence over the Canadian Pacific, offers an attractive route to Boston, with the advantages of the scenery of the Thousand Islands, Rapids of the St. Lawrence, Toronto, Ottawa, Montreal, Quebec, and the White and Green mountains. A trip through Lake Ontario, the Thousand Islands and the Rapids can be made at a nominal addition to the rail rate as referred to on page 1368. Further particulars may be had from Mr. A. C. Shaw, General Agent of the Canadian Pacific Railway, Chicago.

WABASH SPECIAL.—The Wabash Railroad will run a special train of fine Pullman coaches and dining car through to Boston without change. This will leave Chicago, Sunday, June 3, at 10:30 p. m. and reach Boston Tuesday, June 5, at 7 a. m., having stopped at Niagara Falls for two or three hours. The feature of this train is the fact that although two nights are spent on the road, no extra charge is made for sleeping car, and the arrival in Boston early Tuesday morning will effect a saving of one night's lodging at Boston over other arrangements which anticipate arrival in Boston on Monday. In addition, this service will allow all of Sunday to be spent in Chicago. A special representative of the railroad will accompany the train. Reservations and further particulars may be secured through Mr. F. H. Tristram, Assistant General Passenger Agent, 97 Adams Street, Chicago.

PENNSYLVANIA LINE VIA WASHINGTON.—The Pennsylvania Railroad expects the patronage of many because of the fact that it offers by the Baltimore and Ohio Railroad the opportunity of stop-over at Washington en route to Boston. Further information may be secured from Mr. C. L. Kimball, Assistant General Passenger Agent of the Pennsylvania Railroad, 2 Sherman Street, Chicago.

MISSOURI VALLEY SPECIAL.—A special train will run over the Chicago and Alton, the Grand Trunk and the Boston and Maine Railroad, certain cars of which will leave Kansas City, St. Joe and Omaha May 31. The forenoon of the next day will be spent in Chicago and the departure over the Grand Trunk will be at 3 p. m. on a special train, arriving in Boston, June 4, morning. This trip includes a stop at Niagara Falls, a boat trip down the St. Lawrence River, through the Thousand Islands, and runs through the famous Green Mountain scenery. An optional return trip may be arranged through New York City via Fall River steamboat. Particulars of this train may be obtained from Dr. Charles Wood Fassett, St. Joseph, Mo.

Return Limit Time Extended.

Later announcement is made of arrangements by which an extension of the final limit may be secured so as not to leave Boston till July 15. To secure this it is only necessary for the purchaser of the ticket to deposit it in person with the validating agent at Boston not later than June 18, paying $1.

Stop-Over at New York on Return Trip.

The Trunk Line Association announces: "Stop-over at New York may be obtained on return trip on tickets reading via New York, provided ticket has been validated by validating agent at Boston and is deposited by original purchaser in person with joint agent at New York not later than one day after validation at Boston, and on payment of fee of $1.00 at time of deposit, but in no case shall the stop-over at New York extend beyond July 15. Joint agent at New York will attach stop-over certificate to ticket, which shall not be delivered to passenger earlier than two hours before departure of train on which return trip will begin (except that for trains leaving after 6 p. m. and before 9 a. m. ticket will be delivered to passenger before 6 p. m.). Ticket will not be good leaving New York later than the day following date of leaving Boston unless stop-over certificate is attached by joint agent at New York. Mr. W. F. Holwill is joint agent, 182 Fifth Avenue, New York City. Office hours, 8 a. m. to 6 p. m., week days and Sundays."

SECTION ON NERVOUS AND MENTAL DISEASES.

CHAIRMAN, WHARTON SINKLER, PHILADELPHIA; SECRETARY, T. H. WEISENBURG, PHILADELPHIA.

The following program was received too late to be inserted in its order on a previous page:

Chairman's Address. Wharton Sinkler, Philadelphia.

Manic-depression, Insanity and Visceral Disorder. Henry S. Upson, Cleveland, Ohio.

The Motor Degenerative Sequence in Dementia. H. A. Tomlinson, St. Peter, Minn.

Lucid Intervals in the Insane and Their Medicolegal Importance. D. J. McCarthy and W. W. Hawke, Philadelphia, Pa.

Affections of the Spinal Cord in Epileptics. W. N. Bullard, Boston.

The Pathology of Uremic Hemiplegia. J. H. W. Rhein, Philadelphia.

The Paranoid Group. F. X. Dercum, Philadelphia.

The Blood Pressure in Paresis. G. L. Walton, Boston.

The Anatomic and Physiologic Results of Experimental Nerve Suture. L. Pierce Clark, New York City.

Cases of Basilar Thrombosis. E. E. Southard and N. K. Wood, Boston.

Paralysis of the Pharynx, with Four Years of Feeding with the Tube. S. Weir Mitchell, Philadelphia.

Discussion to be opened by Joseph Collins, New York City.

Unilateral Ascending Paralysis, Its Clinical Varieties, and Their Pathological Causes. Charles K. Mills, Philadelphia.

A Contribution to the Symptomatology and Diagnosis of Spinal Cord Tumors. J. Ramsay Hunt, New York City.

Hydrocephalus as the Result of the Occlusion of the Aqueduct of Sylvius. William G. Spiller, Philadelphia.

Myasthenia Gravis. C. Eugene Riggs, St. Paul, Minn.

Migrainic Psychoses, apropos of Twelve Cases. Alfred Gordon, Philadelphia.

Multiple Neuritis Resembling Progressive Muscular Atrophy, with Report of Cases. Julius Grinker, Chicago.

Collective versus Individualized Treatment of Neuroses and Psychoses. Richard Dewey, Wauwatosa, Wis.

Tumor of the Right versus Tumor of the Left Frontal Lobe of the Brain. W. C. Krauss, Buffalo, N. Y.

Conjugate Deviation of the Eyes and Head and Disorders of the Associated Ocular Movements in Tumors and Other Lesions of the Cerebrum. T. H. Weisenburg, Philadelphia.

Discussion to be opened by William G. Spiller, Philadelphia.

Palliative Operations (Cerebral Decompression) in the Treatment of Tumors of the Brain. William G. Spiller and Charles H. Frazier, Philadelphia.

The Present Status of Brain Surgery. M. Allen Starr, New York City.

A Contribution to the Localization of the Motor Area Derived from a Study of Three Cases of Jacksonian Epilepsy. H. C. Gordinier, Troy, N. Y.

(Continued under The Boston Session on page 1388.)

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

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[For other information see second page following reading matter.]

SATURDAY, MAY 5, 1906.

PREVIOUS BOSTON SESSIONS—A RETROSPECT.

The coming session of the American Medical Association will be the third in the history of the Association held in Boston. Organized in 1847 in Philadelphia, following a preliminary convention in New York City the preceding year, the Association held its first regular session in Baltimore, May 2, 1848. The second annual session convened in Boston May 1, 1849, just fifty-seven years ago. The official minutes show that the Association met in the hall of the Lowell Institute at 11 o'clock on the morning of May 1, and was called to order by the President, Dr. Alexander H. Stevens, president of the Faculty and Emeritus Professor of Surgery of the College of Physicians and Surgeons of New York. Dr. John Collins Warren of Boston, who was elected on the following day as the third president of the American Medical Association, delivered the address of welcome on behalf of the Committee of Reception of the Massachusetts Medical Society.

It is interesting to look over the list of those present at this second session of the new Association. As would naturally be expected, most of the members came from the eastern states and especially from near the place of meeting. In accordance with the provisions of the constitution then in force, the Association was composed of delegates representing state and county societies, medical colleges and hospitals. Those in attendance numbered 658 and were distributed among the various states as follows: Maine, 3; New Hampshire, 53; Vermont, 75; Massachusetts, 160; Rhode Island, 14; Connecticut, 46; New York, 135; New Jersey, 12; Pennsylvania, 50; Delaware, 54; Maryland, 14; Virginia, 6; North Carolina, 1; South Carolina, 6; Georgia, 6; Alabama, 5; Louisiana, 3; Tennessee, 2; Ohio, 5; Indiana, 3; Illinois, 2; Missouri, 2; Iowa, 1. There were only 15 delegates present from west of the Allegheny Mountains, and only 3, those of Iowa and Missouri, from west of the Mississippi River.

Glancing over the list of the Massachusetts delegates, one notices the name of Oliver Wendell Holmes, who sat as a representative of the Medical Department of Harvard University and of the Tremont Street Medical School; of Dr. Samuel Cabot and Dr. Samuel Parkman, representing the Boston Society for Medical Improvement; and of Dr. Henry I. Bowditch, who, with Dr. Warren, represented the Massachusetts General Hospital. In the New York delegation sat Dr. N. S. Davis as a representative of the "New York Medical Association," and Dr. Austin Flint, representing the Buffalo Medical Association and the Buffalo Hospital; from Pennsylvania came Dr. George B. Wood and Dr. Alfred Stillé, representing the Philadelphia College of Physicians; Dr. Samuel Jackson, as a delegate from the University of Pennsylvania, and Dr. Charles D. Meigs, representing the Pennsylvania Hospital. In the Virginia delegation sat Dr. Hugh H. McGuire and Dr. G. Lane Corbin, as representatives of the Medical Convention of Virginia, and Dr. John P. Mettauer, representing the Randolph-Macon Medical College. South Carolina sent Dr. J. Moultrie and Dr. Thomas G. Prioleau. From Ohio came Dr. Reuben D. Mussey, later chosen President of the Association. Illinois had two delegates present, Dr. John F. Sanford, representing the Rock Island Medical School, and Dr. John Evans, representing Rush Medical College.

At this session the following officers were unanimously elected: President, Dr. John C. Warren, Massachusetts; vice-presidents, Drs. John P. Harrison, Hugh H. McGuire, Austin Flint and R. S. Steuart; secretaries, Drs. Alfred Stillé and Henry I. Bowditch.

It is interesting to note that problems confronting the Association at its second session were evidently very similar to those which confront it to-day, and that the changed conditions and the marvelous growth and development of the country in the fifty-seven years which have elapsed since the first Boston session do not seem to have affected in any way the duties or responsibilities of the Association either to its members or to the public. The report of the standing committee on medical education, presented on the afternoon of the last day of the session, was evidently considered and discussed at length. The committee, of which Dr. Stevens was chairman, reported in favor of increasing the requirements for medical students before admission to medical schools; also that the course be increased to six months and that state medical societies be asked to recognize only those physicians who had obtained a degree in medicine or a license from some regular medical body after due examination. Dr. U. Parsons, chairman of the committee appointed at the Baltimore session the previous year, made a report on the subject of adulterated and spurious drugs, and recommended the appointment of a committee, consisting of two delegates from each state, "to note all the facts that come to their knowledge with regard to the sophistication of drugs, medicines, chemicals, etc., and to report at the next annual session." Following the adoption of this report, Dr. J. B. Johnson introduced a resolution providing for the establishment of schools of pharmacy, in the preamble of which he said: "Numberless and important evils result . . . from the universal traffic in patent and secret remedies." Dr. Stevens submitted the following resolution: *"Resolved,* That the American Medical Association recommend medical men in the Association indi-

vidually, by public lecture and otherwise, to enlighten the public in regard to the duties and responsibilities of the medical profession and their just claims to the confidence of the public." The matter of preparing a list of physicians who were recognized as regularly graduated practitioners, as well as the establishment of a bureau on American medical biography, were discussed. It is only this year that these ideas are being put into effect.

The following is also interesting reading at the present time: "Dr. Thomas Wood presented the following resolution, which was adopted: '*Resolved*, That the Committee on Medical Science for 1849 be instructed to inquire into the expediency of establishing a board to analyze the medicines and nostrums now palmed on the public, and to publish their results of their examinations in a newspaper to be established for this purpose; and, further, to append such plain views and explanations thereto as will enlighten the public in regard to the nature and danger of such remedies.'"

Sixteen years later—June 6-9, 1865—the American Medical Association again met in Boston. The country at that time had barely emerged from the confusion of the Civil War, the meeting being held only two months after Lee's surrender at Appomattox. The Association assembled in the Massachusetts State House and was called to order by the President, Dr. N. S. Davis, then of Illinois, who also sat as delegate from Rush Medical College. Dr. Henry J. Bigelow, chairman of the local committee on arrangements, delivered an address of welcome. Roll call showed 616 present, of whom 555 were delegates and 61 were "permanent members," who as delegates to some previous meeting had the right to take part in the proceedings, but not the right to vote, distributed among the various states as follows: Connecticut, 31; Delaware, 1; District of Columbia, 9; Illinois, 6; Indiana, 5; Iowa, 2; Maine, 27; Maryland, 7; Massachusetts, 261; Michigan, 7; Missouri, 1; New Hampshire, 31; New Jersey, 12; New York, 102; Ohio, 9; Pennsylvania, 30; Rhode Island, 19; Tennessee, 1; Vermont, 40, and the Army and Navy, 10. These figures are interesting as showing the unequal representation under the old constitution. Although the Association was made up of delegates elected from county and state societies in the proportion of one to every ten members and of representatives from medical colleges, it necessarily followed that the state in which the meeting was held had an overwhelming proportion of delegates present. At this meeting, for instance, Massachusetts, Connecticut and New York together had 257 delegates, or nearly a majority of the entire voting membership. As the constitution at the preceding meeting in New York City had been amended so that the president elected at each meeting did not assume the chair until the following meeting, Dr. N. S. Davis, who was elected President in June of 1864, retained the chair through both sessions, giving way at the close of the Boston session to Dr. Humphrey Storer of Boston, who was elected President on the last day of the session. It is worthy of note that practically the entire attendance was from the eastern states, immediately contiguous to the place of meeting. None of the southern states were represented, as the entire medical profession of the South had been doing military service for four years past. The representation from the western states was also small, there being only thirty present from west of the Allegheny Mountains, and but three from west of the Mississippi River.

Much of the time was devoted to argument and discussion over two questions: First. The action of the Association in expelling from membership Dr. Montrose A. Pallen of New York, who was accused of complicity in the plot to poison the water of the Croton reservoir. Second. Criticism and arraignment of Surgeon-General Barnes, who was accused of consulting with a homeopath in the case of Senator Seward and his son. In spite of the evident tendency to bitter feeling and plain speaking, which would be expected at such a time, a considerable amount of valuable work was done. A large number of committees reported on various subjects. Among these were the reports of the committee on diphtheria, on spotted fever, on membranous croup, on compulsory vaccination, etc. Dr. T. Antisell of Washington presented a report to the Committee on Medical Education, which was referred to the Committee on Publication without discussion. Among other things, the report states that the committee attempted to obtain new and reliable data regarding medical colleges then in existence. Only thirty-three medical schools could be reached at the time, and of these, twenty replied, representing 3,209 matriculates and 1,001 graduates. The committee estimated that the entire number of medical students of the United States at that time was about 5,000. Of these twenty schools, dissections were required in but twelve, microscopy was taught in six, and pathology in only two. The committee recommended the passage by each state of a medical practice law, establishing a board of examiners, which should be the licensing body, entirely separate from the medical college or graduating body. On the afternoon of the fourth day, Friday, June 9, the Association was addressed by John A. Andrews, governor of the state of Massachusetts.

There are two facts which impress one in reading the reports and transactions of these previous sessions: First. That the American Medical Association in former years drew its attendance from a much smaller section of the country than it does to-day, which, of course, was to be expected; and that the attendance was more strictly limited to the territory immediately contiguous to the place of meeting. Second. That the problems which confronted the Association when it met in Boston in 1849 and 1865 were much the same as those which confront it to-day. Ever since the organization of the American Medical Association, the questions which have been most constantly and prominently

before it have been those connected with medical education, medical licensure and the purity and integrity of the drugs offered to the physicians by manufacturers and dealers. Much progress has been made along all of these lines since the Association last met under the shadow of the Massachusetts State House. It is to be hoped that the coming session will not only be the most successful and enjoyable of any of the annual sessions heretofore held, but that much definite progress will be made in solving the problems which have been of vital importance to the Association ever since its organization.

TUBERCULOUS INFECTION AND IMMUNITY.

Prof. Theobald Smith's lecture on problems in tuberculous infection and immunity[1] contains much of interest to students of tuberculosis, and a restatement and discussion of some of the points considered seem desirable more by way of emphasis than criticism.

The modes of invasion of the body by the tubercle bacillus are now regarded generally as fairly well understood. In most cases the bacilli are inhaled either in the form of dried sputa or as moist particles. This appears to be the case in cattle as well as in human beings. Baumgarten has long championed the view that many cases are the result of congenital infection, the bacilli being carried by the blood to various parts of the body, where they sooner or later give rise to evidences of morbific activity. In this way he explains the occurrence in children of primary tuberculosis of lymph nodes and other internal structures without disease at what would be the portal of entry in case the bacilli entered from without after birth. Based on the results of animal experiments, Baumgarten holds that tubercle bacilli always cause lesions at the point where they enter the body, but this contention is opposed by the majority of the investigators of the localization of primary tuberculous infection in children, notably Harbitz. Theobald Smith's study of bovine tuberculosis from this point of view has led him also to conclude that tubercle bacilli may pass through mucous membranes without being detained. His observations on this point are quite striking. Emphasis may also be put on his conclusion that Behring's theory that tuberculosis starts early in life through the digestive tract is not, as a rule, applicable to the bovine disease, which may enter by way of different channels, the respiratory tract being the most important.

As regards immunization against tuberculosis, Smith's lecture makes it very clear that in spite of the stupendous amount of study given to this subject we are still at the beginning. The relation of the secretions, metabolic products and component elements of the bacillus to the production of immunity has been investigated, with the result that now the attention is being turned to the whole bacillus, more particularly the living attenuated bacillus; in other words, we are going back to the old principle established by Pasteur in 1880 in his protective inoculation against fowl cholera. Unfortunately, the procedure, or its analogue, by means of which cattle may be made resistant to living cultures of bovine tubercle bacilli, namely, the intravenous injection of living human bacilli, is not applicable to man. Smith points out, however, that the high percentage of latent or arrested tuberculosis in human beings indicates that man normally possesses considerable resistance, which probably may be augmented specifically by some form of inoculation. On theoretical grounds he recommends for this purpose early cultures of tubercle bacilli, grown on media resembling as nearly as possible living human tissues, in order to maintain the virulence of the organisms, and killed by heating to 60° C. It may be recalled that A. E. Wright for the same purpose employs ground and crushed bacilli (tuberculin TR) in small doses, measuring the result for guidance as to dosage and proper intervals between the injections by determination of the opsonic index of the patients. The therapeutic results obtained by Wright have awakened great enthusiasm and certainly demand that the method be given a fair and exhaustive trial. In the meantime Theobald Smith's suggestions as to the possible advantages of the killed bacilli should be subjected to experimental test.

In concluding Smith points out that in the case of the tubercle bacillus partial immunization, i. e., increased resistance, can not eradicate tuberculosis, because it would lead to the survival of especially virulent races of bacilli, that in the unprotected probably would cause severe manifestations. Careful isolation of the sources of infection, namely, the sick, so that the actual spread of infection be prevented, combined with protective inoculation, would seem to be the weapons with which to attempt to drive back tuberculosis.

1. This issue of THE JOURNAL, page 1345.

LIFE INSURANCE EXAMINATION FEES.

Whether it is because gold has depreciated in value, owing to the increase in its production, or whether it is because of good times resulting from good crops and other good things that tend to prosperity, we do not know, and it does not matter; but, whatever the cause, the prices of all the necessities and luxuries of life—except a few articles whose cost of production has lessened by improved machinery—have enormously increased during the last few years. This is common knowledge. Likewise it is well known that the shoemaker, the bricklayer, the carpenter and artisans of all kinds, as well as the hod-carrier and the day laborer, are receiving from 25 to 100 per cent. higher wages than they did ten or fifteen years ago. The lawyer is not hesitating to charge for preparing a brief double what he charged ten years ago—and he gets it. Even the preachers' salaries are better than they used to be. The doctor is the only breadwinner whose fees have remained

stationary. Where fifty cents for office consultation and a dollar for a visit were the average fees, say, fifteen years ago, the same high remuneration still prevails. This is especially true in the smaller towns. In the larger cities the better men and the specialists have not hesitated to charge more as the incomes of their patients increased, but the fees of average practitioners remain the same. Of course, no one is to blame but those who have been contented to put up with these absurd conditions; it is the doctor's, and not the patient's, fault. It is the same old story; if we do not look after our own interests we can not expect others to do it for us.

Our object now, however, is not to discuss the fee question in its general aspects, important though this question is, but to call attention to the subject as it relates to the examination for life insurance. As many of our readers know to their cost, some old-line companies have recently cut their fees from $5.00 to $3.00, and this without consulting those who did the work—at least not until after the cut had been made. And then the majority of those to whom the new terms were tendered meekly submitted. But what else could they do? They reasoned, undoubtedly, that if they refused to submit some other physician in the same town would accept, and, therefore, that it was better to have the reduced fee than none at all. But did they reason rightly when that reasoning forced them to the conclusion that another physician would take the pittance they were offered if they did not? This is the question to be considered. In the past, when the medical profession was poorly organized, probably they would have been right. Then each physician acted individually, for himself alone, without regard to the result of his action on the profession as a whole. It is different now.

In the greater portion of our country all the good men —and the old-line companies want no others—are in the organization and thus are in a position unitedly to demand their rights—justice. From the fact that these companies moved in the matter at the same time, took exactly the same action, and even used the same verbiage in their circular letters in some instances, it looks very much as though they were united and acted in conformity with a plan mutually agreed on. These wealthy organizations, without consulting those directly interested, said to their medical examiners: "We have reduced your fees 40 per cent.; accept this reduction or we will get some other physician to examine for us." They thought their proposition would be accepted, and we regret to say that they were right in too many instances.

The question arises: Are we now sufficiently united to resist successfully such arbitrary dictation on the part of a combination of wealthy corporations, or shall we continue to submit and to take the pittance that is offered? We certainly believe that we are sufficiently united; at least in most localities, and that we should not submit. As we have recorded from week to week in our news columns, several county societies have already taken action and have refused to accept this new rate. In some instances, every physician in the county has signed an agreement not to examine for the old-line companies for less than the fee received in the past. As one put it, "If we accept this 40 per cent. reduction now, how soon will there be another similar cut?"

We publish in our "Correspondence" columns a protest and a plea on this subject from Dr. J. N. McCormack. Having traveled over the country and having come in close touch with the medical profession, he knows the conditions and the sentiments of the profession, and he believes that a united resistance should be made everywhere. From the numerous letters we have received we believe that he is right and that action should be taken immediately in every county society in the country.

While we are giving attention to the question as it relates to the old-line companies, we should not forget that the prevailing conditions as they relate to the industrial companies and fraternal insurance orders are still worse, one dollar and even less being the usual examination fee for this work. It is absurd, and a reflection on the good common sense of the members of our profession, that we should have put up with this for so long, and, while we are discussing the question as it relates to the old-line companies, let us not forget to take in the industrial and fraternal phase of the question.

The time has come to act.

URIC ACID SOLVENTS.

If we analyze the various remedies that are recommended as uric acid eliminators or solvents, we find that nearly all of them contain two chief ingredients, i. e., alkali and water; the idea being presumably to alkalinize the blood stream, thereby rendering the uric acid more soluble and hence promoting its excretion. This in itself is not a bad idea, although it is an exceedingly difficult matter more than temporarily to change the reaction of the blood by the administration of alkalies by mouth, because the kidneys at once eliminate any excess of alkali. The idea, however, that alkalies given by mouth can in any way aid in dissolving uric acid concretions after they have once formed is, of course, preposterous. One might as well give ether to dissolve the fat of the body in obesity or acids to dissolve the calcium out of osteophytes, on the ground that ether or acids can dissolve fat or calcium salts in the test-tube; in other words, the fact that alkalies are a uric acid solvent *in vitro* does not mean that they can accomplish the same *in vivo*. The amount of ingested alkali, moreover, that could reach uric acid deposits in the circulation would be so infinitesimally small that a solvent effect could impossibly be accomplished.

This criticism applies with particular emphasis to lithium preparations that are so popular in the treatment of uric acid diseases. In the first place so-called

lithia waters[1] contain only a few decigrams of lithium carbonate to the liter; as they always also contain large quantities of other alkalies, only a very minimal amount of uric acid (according to Berthollet's law) would combine with the lithia, the bulk with the sodium and potassium salts, while at the same time most of the lithium would be promptly excreted as chlorid, phosphate and sulphate. Finally, lithium carbonate, which actually does readily dissolve uric acid in the test-tube, is immediately converted in the stomach into lithium chlorid, a salt that possesses only slight uric acid dissolving properties.

Whatever virtues, therefore, the innumerable uric acid remedies and lithia waters may possess, they owe to the alkali that they contain, but this alkali acts only mildly as a uric acid eliminator and not at all as a solvent of urate concretions; it acts chiefly as an antacid in acidosis and possibly as a stimulant to the liver function. The water is probably the most efficacious ingredient of these uric acid remedies, because abundant water drinking combined with a rational diet, the details of which can not be enumerated here, undoubtedly acts beneficially in most disorders in which metabolism is retarded and in which incompletely oxidized waste products accumulate.

Until we understand the real cause of gout and allied conditions, until we know what produces the symptoms that are popularly considered to be manifestations of a hypothetical uric acid diathesis, we can do no better than to treat the gastrointestinal tract and the liver, to promote elimination and give the patient the benefit of certain symptomatic and local treatment.

If alkali and water are to be used, and we know empirically that they are of some benefit, why not order our patients to drink a few quarts of water a day, to which may be advantageously added a teaspoonful or so of baking soda and a pinch or two of precipitated chalk? This would accomplish all that can possibly be claimed for their goods by promoters of a host of expensive mineral waters and the manufacturers of most of our well advertised so-called uric acid remedies.

1. The following quotation from an advertisement of Londonderry Lithia Water is taken from a daily paper:

> There are several Elements produced from Food that in sufficient quantities will eventually destroy your Body—the chief one is called by learned scientists Uric Acid.
>
> Now Uric Acid is just a Poison—
>
> And when Uric Acid gets into the System from the Food you eat, it usually goes straight for the Blood—the great highway of Health and Disease in the Body.
>
> Now Uric Acid is one of the hardest things in the world to dissolve.
>
> Some metals are easier to dissolve than Uric Acid—
>
> And the Blood, which can usually dissolve almost everything, has no effect on it whatever—
>
> Consequently the Uric Acid remains in the Blood as Uric Acid—and clogs or impedes the circulation of the Blood just as Ashes clog your Stove draughts.
>
> Now Uric Acid clogs the circulation because primarily it makes the Arteries smaller—that it does this is an acknowledged scientific fact.

In this connection, it may be interesting to know that an analysis of this water showed that it contained only a trace of lithia.

THE BOSTON SESSION.

Considerable space is given this week to Boston and the coming session of the American Medical Association. But we make no apologies, for, if we mistake not, the session, in a month from now in the chief city of the old Bay State, will be the largest gathering of medical men ever held in this or in any other country. And not only will it be the largest, but it will bring together the leading men of our profession from the United States, as well as many from abroad. The preliminary programs of the Sections printed in this issue indicate in part what will be the character of the scientific work; but only in part. Aside from the scientific exhibit, which promises to be unusually attractive and instructive, there will be demonstrations of the application of scientific methods in practice that will be appreciated both by those who already have, as well as by those who have not, a good knowledge of such methods. But, aside from the scientific work and attractions, the social entertainments promise a season of enjoyable relaxation that will make the gathering one of pleasure as well as of profit. Under the indefatigable leadership of Dr. H. L. Burrell, Chairman of the local Committee of Arrangements, the physicians and surgeons of Boston have been working for months to make the visit of their professional brethren one of enjoyment. The whole Boston profession has been, and is, working unitedly and unselfishly to make the session a memorable one. Provisions have been made for seeing the historic spots in and around Boston, and excursions to other New England points undoubtedly will be arranged. While there will be a very large attendance, the committee promises to find good comfortable accommodations for all. But we suggest that those who expect to go should write to the hotel committee in advance, and not wait until their arrival and then expect a large corner room with bath prepared for them.

THE CALIFORNIA FUND.

Reports received from San Francisco show that there will be abundant need for the money which physicians are contributing to the fund for the California physicians. A large number—how many is not known—lost all their property, including house and office furniture, instruments, etc., and, in addition to this, their practice—at least for some time to come. They are true to their professional instincts, however, for they are working without compensation among the sick and injured, overseeing sanitation and aiding in the prophylactic measures which are so necessary under the present circumstances. While it is gratifying to note the response to the appeal to physicians in behalf of their suffering brethren, it is hoped that all who have not yet done so and are able to contribute will feel it a privilege to make some contribution, however small. The opportunity is a rare one, and no one will have cause to regret the philanthropy shown. We publish on another page the list of contributions thus far received, and we trust that still further and more generous response is forthcoming from the more fortunate brothers of those in distress.

THE REGENERATION OF LIMBS.

The anticipation of Dr. Morgan, in his article[1] in this issue of THE JOURNAL, seems almost as extreme as the alleged prophecy of a distinguished foreign surgeon, that synthetic chemistry would yet produce living, sentient and thinking beings. There is a great deal of faith in scientific men—some might call it credulity—as to the results of their labors. The suggestion of Dr. Morgan, however, has a better basis than have some of the others. It merely asserts the probability in the highest vertebrates of a process that is well known in the lower vertebrates and is still more frequent throughout the invertebrate kingdom. Nearly all the tissues in vertebrates, including even the bones, tend, when destroyed, to reproduce themselves to a greater or less extent, and the suggestion of Tornier (quoted by Dr. Morgan) that the double limbs sometimes found in human embryos may have their origin in injuries to the fetal periosteum is perhaps not unworthy of consideration. It would seem at first sight still more probable that some of the abortive limbs or parts (for example, fingers growing out of the shoulder joint) might be the result of some such process attempting to make up for a lost member. We should expect such things more in the cartilaginous fetus than in the further advanced organism, and this is supported by the facts observed in the embryonal stage of the frog. We can not even say that mammals do not have this tendency to reproduce lost parts. A recent observation by Oldfield Thomas[2] of the tendency to regeneration of the tail of the dormouse is a case in point. The facts of paraffin prothesis are also suggestive, indicating, as they do, that very extensive bone lesions can be compensated for if we only give a proper support on which the soft tissues can reproduce themselves. A prominent Belgian physician visiting this country is quoted as saying that among his colleagues at home amputation is almost ignored as a surgical necessity unless the joints are involved. It may be a very long time before we see the realization of Dr. Morgan's prediction, and it seems improbable enough, but it can not be said to be an altogether impossible thing.

Medical News

CALIFORNIA.

Accident.—Drs. Charles Sexton and Charles Freedman, Los Angeles, were thrown from their carriage in a runaway accident, April 11, and rendered unconscious.

Plague at Oakland.—Dr. N. K. Foster, secretary of the State Board of Health, reports that there is no doubt of the diagnosis of the case of bubonic plague recently discovered at Oakland.

Personal.—Dr. Henry J. Kreutzmann and family, San Francisco, have returned from a European trip.——Dr. Francis L. Newton, Woodland, has been made president of the local board of health.——Dr. Charles E. Parent, San Francisco, sailed for Europe, April 6.——Dr. Louis C. Deane, San Francisco, has returned from Europe.——Dr. William J. Caesar, San José, has been appointed member of the local board of health, vice Dr. E. D. Moffit, resigned.

CONNECTICUT.

New Internes.—As a result of the examination for internes at Hartford Hospital, the successful applicants out of the 13 who took the examination were Drs. J. D. Blake, A. C. Rowley, R. S. Risley and C. J. Griswold.

Communicable Diseases.—During March 25 cases of smallpox were reported in one town, Putnam; 686 cases of measles in 63 towns; 193 cases of scarlet fever in 46 towns; 17 cases of cerebrospinal meningitis in 9 towns; 148 cases of diphtheria in 32 towns; 112 cases of whooping cough in 20 towns; 30 cases of typhoid fever in 19 towns, and 56 cases of tuberculosis in 17 towns.

Personal.—Dr. W. Matthew Kenna, police surgeon of New Haven, has resigned.——At the meeting of the New Haven County Medical Society, April 19, the following were appointed delegates to the Connecticut Medical Society: Drs. Gustavus Eliot, Frederick N. Sperry, E. Herman Arnold and Henry C. Swain, New Haven; Thomas M. Bull, Naugatuck, and Henry G. Anderson and Frederick G. Graves, Waterbury. Dr. Charles J. Foote, New Haven, was re-elected councilor.——Dr. Frank E. Beckwith, New Haven, expects to start for Switzerland, July 1.

ILLINOIS.

Fever Closes School.—On account of the prevalence of scarlet fever in Deer Creek, and to prevent further spread of the disease, the public school in that village has been closed.

Personal.—Dr. Albert M. Beal, Moline, has been elected president of the board of education.——Dr. Harry R. Lemen, Alton, left for San Francisco, April 22.

Hospital Internes Named.—The names of the successful candidates for interneship in the Cook County Hospital were certified April 26 by the civil service commissioners. The following are the names of the successful applicants and their marks: Lawrence W. Smith, 90.8; R. L. Burns, 90.7; Fred Epplen, 90.5; C. A. Katherman, 90.5; E. P. Oldham, 90.5; Eagan N. Fishinam, 89.9; James T. Churchill, 87.6; Evan S. Evans, 87.6; M. J. Moes, 85.5; M. T. Easton, 85.4.

Chicago.

Personal.—Dr. Marie W. Walker sailed for Europe on the *Deutschland*, April 28.——Dr. and Mrs. Alexander Hugh Ferguson have returned from a southern trip.

Hospital Appeals for Help.—The directors of the Chicago Charity Hospital have made an appeal for $5,000 in aid of the institution which, so far as its capacity of 30 beds will allow, is free to the poor.

Hospital for Ravenswood.—The trustees of the Ravenswood Hospital have purchased a tract of land at Winchester and Wilson avenues, 192x152 feet, on which a modern hospital building will be erected.

Ask for Ambulance Physicians.—The health commissioner and the chief of police have asked the finance committee to recommend to the city council the transfer of the ambulance service from the police to the health department and to authorize an appointment of a police surgeon to have charge of each ambulance.

Examination of Candidate Medical Officers.—An examination of candidate medical officers for the National Guard will be held at Senn Hall, Rush Medical College, May 5. The examining board consists of Lieutenant-Colonel George Paull Marquis, assistant surgeon general; Major and Surgeon Charles Adams; Captain and Assistant Surgeon Samuel C. Stanton; First Lieutenant and Assistant Surgeon Truman W. Brophy.

Deaths of the Week.—The total deaths from all causes for the week ended April 28 was 621, 24 less than for the preceding week and 94 more than for the corresponding week of 1905. The mortality of the week is equivalent to an annual death rate of 15.80 per 1,000. Pneumonia still heads the list of death causes with 117, followed by consumption with 81; heart disease, with 48; nephritis, with 47; suicide, including violence, with 43; cancer, with 33; acute intestinal diseases, with 28, and nervous diseases, with 22. Scarlet fever caused 11 deaths; typhoid fever, 9; measles, 5; diphtheria, 4, and whooping cough, 2.

INDIANA.

The Afflicted.—Dr. James A. Comstock, Greenfield, has been compelled to abandon practice on account of illness.——Dr. Ernest R. Sisson, Maxwell, has been ill for a year, but is now improving.

Personal.—Dr. Patrick Jameson, Indianapolis, more than 57 years in practice, celebrated his eighty-second birthday anniversary April 18.——Dr. Benjamin L. W. Floyd, Evansville, sailed for England on the *St. Paul*, April 21.——Dr. Marion Thrasher of San Francisco, Cal., formerly of Fayette County, reports himself and family safe, but that everything in the way of property was lost.

1. This issue of THE JOURNAL, page 1327.
2. Zool. Soc. London Nature, Jan. 11, 1906.

IOWA.

Restore Meeting Date.—The officers of the Iowa State Medical Society, who changed the date of meeting from May 16-18 to May 9-10, have announced that the meeting will be held on the dates originally fixed, namely, May 16, 17 and 18.

Protest Against Abolition of Registrars.—The physicians of the state have received with great disfavor the recent act of the legislature abolishing registers of births and deaths, and doing away with the issuance of burial permits after July 1.

Personal.—Dr. Theodore Engle, State Center, has been elected delegate from the Marshall County Medical Society to the Iowa State Medical Society, and Dr. Winfield S. Devine, Marshalltown, has been chosen as alternate.——Dr. Newton J. Rice has been appointed city physician of Council Bluffs.——Dr. and Mrs. James E. Conn, Ida Grove, will spend a portion of the summer on the Atlantic seaboard.——Dr. P. Alfred Bendixon, Davenport, sailed from New York, April 24, for Naples.

KENTUCKY.

Druggists May Sell Liquor.—An ordinance to prohibit the granting of retail liquor licenses to retail druggists of Louisville was defeated at a meeting of the general council, April 25. The ordinance specified that no druggist in Louisville should sell whisky or alcohol except on the prescription of a practicing physician.

Prohibit Medicine Sample Distribution.—The Louisville board of aldermen has adopted an ordinance prohibiting the distribution of the samples of "patent medicines," preventing the promiscuous throwing of samples of medicine into yards, and stipulates that whenever samples are distributed they must be given to some responsible person of the household.

MARYLAND.

Tuberculosis Commission.—The governor has appointed the following on the state tuberculosis commission: Drs. Lillian Welsh and William Sidney Thayer, Baltimore, and Messrs. John M. Glen and Daniel W. Hopper.

Milk Exhibit.—The State Board of Health, encouraged by the success of the tuberculosis exhibit two years ago, is preparing to hold a public milk exhibit at McCoy Hall, Johns Hopkins University, Baltimore, May 7 to 14. This is the culmination of the course of lectures recently delivered on the same subject and in the same hall. In arranging this exhibit the board has called to its aid many other boards and societies. The exhibit will embrace the following: Chemistry of milk; pathology and bacteriology of milk and milk products; statistics of milk; morbific, infectious and anomalous milk; medical milk commissions and milk dispensaries; modified milk; model dairies; dairy utensils and dairy rations; sophistications and adulterations of milk; manufactured milks and milk foods; technical uses of milk; dairy customs of foreign countries; the culinary uses of milk; literature of milk and dairy products. The contributors to the exhibit will include the United States Department of Agriculture, state food and dairy departments, sanitary live stock boards, agricultural experiment stations, boards of health, medical milk commissions, charitable agencies, research laboratories, and a selected list of commercial concerns.

Baltimore.

Hospital Report.—The report of the dispensary physician, University of Maryland Hospital, shows 28,028 cases treated during the year ended April 1, namely, 7,163 new and 20,865 old cases.

Smallpox has been discovered in the southwestern part of the city. Two white women and two white children are now at quarantine and it is expected that others will follow. Five or six other cases have been discovered in the western suburbs, and a general diffusion of the disease seems imminent there, as from the mildness of the disease its nature was not suspected and there was no attempt at isolation.

MASSACHUSETTS.

Personal.—Dr. William T. Councilman of Harvard University Medical School has been elected president of the Southern Society of Boston.

Emergency Hospital Closed.—The Emergency Hospital, Springfield, which was started five years ago on the certificate principle of $1 a year for treatment, has surrendered its lease and its affairs are being closed.

New French Medical Society.—A medical society has been organized at Fall River, known as the "L'Union Medicale de Fall River, Mass.," with 20 members and the following officers: President, Dr. Samuel J. Kelly, and treasurer, Dr. F. de Borgia Bergeron.

Bradford in Cleveland.—Dr. Edward H. Bradford, Boston, was the guest of honor at a complimentary dinner at the Hollenden, Cleveland, April 20, and later addressed the Academy of Medicine on "Muscle and Tendon Transference and the Relation of General to Orthopedic Surgery."

Hospital Debt Liquidated.—The liquidation of the $22,000 debt of the Springfield Hospital has been assured by the receipt of $2,460 from a benefit concert and three additional contributions of $1,000 each. The amount now pledged is $23,300, which will free the hospital from debt and leave a good nucleus for a surplus fund.

District Society Meeting.—The Hampden District Medical Society held its annual meeting in Springfield, April 17. The following officers were elected: President, Dr. Edgar M. Guild, Springfield; vice-president, Dr. Daniel F. Donoghue, Holyoke, and secretary-treasurer, Dr. Frederick S. Ward, Springfield. Drs. Daniel E. Keefe, Springfield; Arthur L. Damon, North Wilbraham, and Walter R. Weiser, Harvey W. Van Allen and James E. Marsh, Springfield, were appointed censors; Drs. Daniel E. Keefe, Walter A. Smith, Theodore S. Bacon, Everett A. Bates, Robert P. M. Ames, Frederick W. Chapin, Frederick B. Sweet, Harry C. Martin and Charles F. Lynch, Springfield; J. Philip Schneider, Palmer; Charles W. Jackson, Thorndyke; George H. Janes, Westfield, and Locero J. Gibbs, Chicopee Falls, were chosen as councilors, and Dr. James W. Hannum, Ludlow, was appointed commissioner of trials.

MICHIGAN.

Personal.—Dr. J. F. Munson, who has been assistant to Dr. Victor C. Vaughan, Ann Arbor, for the past two years, has been appointed resident pathologist at the Craig Colony for Epileptics, Sonyea, New York.——Dr. Willit J. Herrington, Bad Axe, who has been suffering from septicemia, due to an operation wound, was operated on a few days ago and is now improving.——The medical section of the Wayne County Medical Society has elected Dr. F. L. Newman, chairman, and Dr. Walter J. Wilson, secretary.——Dr. Alexander H. Scott, St. Joseph, is seriously ill with heart disease.——Dr. George W. Orr, Lake Linden, has been appointed township health officer.——Dr. Elliott K. Herdman, Ann Arbor, has been re-elected city physician.——Dr. Charles G. Jennings, Detroit, has been elected president of the board of health.——Dr. Walter T. Parker, Fowlerville, has returned after a year in Germany.

MISSOURI.

Will Not Grant Pardon.—The governor has declined to interfere in the case of Dr. Jefferson Goddard, who is serving a ten years' sentence in the penitentiary for the murder of Fred Jackson, a laundryman of Kansas City.

Commencement.—The Ensworth-Central Medical College, St. Joseph, held its twenty-ninth annual commencement exercises, April 21, when a class of 37 received diplomas. The faculty address was delivered by Dr. O. Beverly Campbell, and Dr. James W. Heddens conferred the degrees.

Fined for Illegal Practice.—"Dr." J. M. Davis, Shelbyville, who was arrested, tried and found guilty of practicing medicine without a license in Scotland County, Mo., and who appealed to the Supreme Court, has had judgment rendered against him, the decision confirming the decision of the lower court. He was fined $50.

Board of Health Sustained.—The Supreme Court on March 30 decided that the State Board of Health has the right to revoke the license of a physician for unprofessional conduct and to order a physician before it for trial. The case in point was that of Dr. S. M. McAnnally, Marble Hill, against Dr. Robert H. Goodier, Hannibal, and other representatives of the State Board of Health. Dr. McAnnally was charged by the citizens of Marble Hill with selling liquor in quantity, and also with selling liquor to minors.

Personal.—Dr. Paul Y. Tupper, St. Louis, has resigned as a member of the State Board of Health.——Dr. R. M. James, Joplin, has been elected secretary of the Jasper County Medical Society.——Dr. J. Thomas Pittam, Kansas City, has been commissioned lieutenant in the medical department of the state and assigned to Battery B, Kansas City Light Artillery.——Dr. John Young Brown, superintendent of the City Hospital, St. Louis, has returned from a trip to Texas and Mexico.——Dr. Anselm C. Robinson, St. Louis, police physician, has been appointed police surgeon at a salary of $2,000 a year.——Dr. H. Wheeler Bond has been appointed health commissioner of St. Louis, succeeding the late Dr. Snodgrass.——Dr. J. N. Barger, Darlington, has been elected delegate to the State Medical Association from the Gentry County Medical Association.——Dr. A. J. Campbell, Sedalia, has been appointed

local surgeon for the Missouri Pacific Railway.——Dr. Richard L. Sutton, United States Navy, retired, and Mrs. Sutton, who have been abroad for several months, have gone to Northern Germany for the summer.

NEW HAMPSHIRE.

Appropriation for Hospital.—The Nashua city council, at its meeting March 27, appropriated $2,500 to the Nashua Hospital.

Compromises Claim.—The city government of Nashua has compromised for $911 the claim of Dr. Charles E. Congdon of about $1,800 for services during the smallpox epidemic in 1902 and 1903.

Personal.—Dr. Eugene F. McQuesten, Nashua, on March 26, completed 40 years of practice in medicine.——Dr. Timothy G. Herrick, formerly of Manchester, is reported to be critically ill in Aiken, S. C.

Consumption.—The State Board of Health has issued for gratuitous distribution a pamphlet entitled "Consumption, Its Prevalence, Cause, Restrictions and Prevention," in which it gives statistics of deaths from tuberculosis in the state.

Graduation Exercises.—The graduation exercises of the Dartmouth Medical School were held in the auditorium of Dartmouth Hall, Hanover, March 31. Dr. William T. Smith, dean of the faculty, presided. The doctorate address was delivered by Dr. Ira J. Prouty, Keene, and a class of 10 was graduated.

NEW YORK.

Personal.—Dr. Albert Van der Veer, Albany, has been made a member of the board of regents of the State University.

New Head of Lunacy Commission.—Dr. Charles W. Pilgrim, superintendent of the Hudson River State Hospital, Poughkeepsie, has been appointed president of the state lunacy commission to fill the vacancy created by the resignation of Dr. William Mabon, appointed superintendent of the Manhattan State Hospital.

Examiners of Alien Insane.—Governor Higgins has permitted to become a law without his signature, Senator Raines' bill defining the powers of the board of three examiners of alien insane at the port of New York, and increasing the salaries of two of the examiners so as to make the salaries of each of the three $5,000 a year.

To Vote on Medical Ethics.—The Medical Society of the State of New York is taking a vote by mail as to whether "The Principles of Medical Ethics of the American Medical Association, being suggestive and advisory, shall be the guide of members in their relation to each other and to the public." The polls will be closed at the expiration of ten days after the submission of the question, which occurred April 27.

Bills Passed.—A bill has been passed by the senate making it a misdemeanor for anyone in authority in any city hospital to refuse admittance to any patient brought by ambulance, or to order his removal to another hospital while he is in a dangerously sick condition.——Assemblyman Hackett's bill has been passed appropriating $1,000,000 for an additional public hospital on Manhattan Island between Twentieth and Seventieth Streets.——Assemblyman Agnew's bill has been passed providing for a commission to consider means for protecting the waters of New York Bay against pollution.

"Patent-Medicine" Bill Passed Senate.—Senator Stevens' bill, providing for the proper labeling of medicinal preparations containing alcoholic, narcotic or other potent drugs and for their inspection, analysis and regulation of manufacture, passed the senate April 27 by a vote of 30 to 15. In making his plea for the passage of the measure Senator Stevens produced a letter containing the astounding statement that "patent-medicine" interests had sent $100,000 to Albany to defeat a similar measure last year, and had succeeded. In discussing the opposition to the measure, Senator Stevens said:

> There are three distinct forces against this measure: the manufacturer of "patent medicine," the retail druggist and the country newspaper. The manufacturer whose "patent medicine" contains alcohol or some potent drug in such percentage as to result ultimately in creating a drug habit is afraid his medicine will not be in demand; the retail druggist has opposed the measure because it applied to stock on hand, but his opposition has been largely withdrawn as the result of an amendment. Finally, the small newspapers are opposed and have flooded me, and I dare say every other member of this body, with circulars urging me to defeat the measure. The proprietors of these papers admit that if the measure is passed their profits will be greatly curtailed, for probably the greatest fraction of the revenue of country newspapers comes from this source. Nearly all the contracts for advertising of this sort, I am informed, have been made containing a clause specifying they shall be binding so long as no adverse legislation is passed by the State Legislature. This is, of course, only a species of blackmail by which the newspapers are permitted to retain the patronage so long as they prevent adverse legislation.

New York City.

Personal.—Dr. Minas S. B. Gregory sailed for Europe, April 26.——Dr. Thomas Darlington will make the address at the graduation exercises of the Training School for Nurses of St. Mark's Hospital.

Seaside Hospital.—The seaside hospital and park bill was signed by Mayor McClellan. This enables the city to spend $2,500,000 for land near the seashore, and it is likely that the site will be purchased at Far Rockaway, where there are four miles of beach front.

OHIO.

Forgot the Appropriation.—The legislature passed a bill creating a commission of six to secure a site for a State Hospital for Criminal Insane at Lima, but failed to make an appropriation for the erection of the building.

Found Guilty of Criminal Malpractice.—Dr. David P. Maxwell, Cleveland, charged with having caused the death of Celia Ritzer by a criminal operation, was found guilty, April 19. The penalty for the crime is imprisonment for from one to seven years.

Personal.—Dr. C. E. Sawyer, Marion, has associated with him in business his son, Dr. Carl W. Sawyer.——Dr. Floyd Swimley, Forrest, who was injured in the blowing up of an acetylene machine, has gone to Columbus for treatment of his eyes.——Dr. A. Per Lee Pease, Massillon, returned from Europe on the *Minneapolis*, April 22.——Dr. A. S. Rochester, Columbus, has been offered an appointment as surgeon in the army of Guatemala.——Dr. Sterling B. Taylor, Columbus, is suffering from septicemia, due to an operation wound, and may lose the middle finger of his right hand.——Dr. Frank Graham, Lisbon, is seriously ill with pneumonia.

PENNSYLVANIA.

Crusade Against Typhoid.—The state commisioner of health has issued a statement urging local boards of health throughout the state, and physicians, nurses and attendants on persons afflicted with typhoid fever to use the greatest care in disinfection and other means of prophylaxis.

Staff Appointments.—The following appointments have been made on the staff of the Taylor Hospital: Surgeons, Drs. John L. Griffith, Taylor, and Stephen S. Watson, Moosic, and John W. Houser, Taylor; physicians, Drs. James S. Porteous, William H. Olmstead, John J. Timlin and W. W. Myers, and consulting surgeon, Dr. Addison W. Smith, Scranton.

New Medical Inspectors.—Dr. Samuel G. Dixon, state commissioner of health, has appointed Dr. Andrew A. Cairns, chief medical inspector of the Philadelphia bureau of health, and Drs. Charles B. Penrose, Norton Downs and Alfred C. Wood, special medical inspectors for Montgomery County. The duties of the special inspectors will be to investigate all cases of contagious disease reported in the county and to inspect the streams of the county with a view to preventing pollution.

Endorse Council on Pharmacy.—At the April executive meeting of the Allegheny County Medical Society the following resolutions were unanimously adopted:

> WHEREAS, It appears that at the present time there is a greater and more widespread awakening than ever before on the part of the profession and the public generally through the land to a realization of the danger and impropriety of using secret or "patent medicines;" therefore be it
>
> *Resolved*, By the Allegheny County Medical Society, that:
>
> 1. It highly commends the action of the American Medical Association for the comprehensive and well-planned campaign which, by means of its JOURNAL and Council on Pharmacy and Chemistry, it is conducting against non-ethical pharmaceutical preparations.
>
> 2. It commends the *Ladies' Home Journal* and *Colliers' Weekly* for the clear, intelligent and persistent way in which they are setting forth to the public the dangers which attend the use of "patent medicines" for purging their own columns, from "patent medicine" advertisements and for exposing the shameless and utterly selfish and mendacious manner in which these nostrums are exploited.
>
> 3. It recognizes in its honored member, Dr. Adolph Koenig, the great merit which belongs to him in that, as editor of the *Pittsburg Medical Review* and later of the *Pennsylvania Medical Journal*, he steadily and persistently refused to admit to their advertising columns any unethical preparation whatsoever, a position which was for many years higher than that taken by any other medical journal in the United States; that it felicitates Dr. Koenig on the fact that THE JOURNAL of the American Medical Association has finally come to adopt the position regarding its advertising columns which he, with his co-editors, adopted for the *Pittsburg Medical Review* many years ago; at the same time it commends THE JOURNAL of the American Medical Association for this righteous, if somewhat tardy, stand which it is now taking; finally, Dr. Koenig's course with regard to advertising in the *Pennsylvania State Medical Journal* is commended to the present editor of that journal.

4. It is considered by the Allegheny County Medical Society to be highly unethical and improper for a physician to prescribe for internal use or external application any preparation of a secret character or to recommend any sanitarium or hospital where it is known that such preparations are employed.

5. It directs the committee on public policy and legislation to report to the society at the regular January meeting of each year a list of such unethical preparations advertised to the profession as shall have come to its notice.

6. The committee on legislation of the Pennsylvania State Medical Society is requested to endeavor to secure the enactment by the legislature of this state of a law providing that all manufacturers of "proprietary" or "patent" medicines shall be compelled to print on each bottle or package an exact formula of the contents; that the commonwealth shall provide for the analysis of all such medicines sold within its borders, and that a heavy fine be imposed for the publication of a fraudulent formula.

7. It directs its secretary to send a copy of these resolutions to the Editor of THE JOURNAL of the American Medical Association and to the editor of the *Pennsylvania State Medical Journal;* to send a copy of section 2 of these resolutions to the editors of the *Ladies' Home Journal* and *Collier's Weekly,* and that until otherwise directed it is ordered that section 4 of these resolutions be printed on every notice of the regular meetings of this society.

Philadelphia.

Society Entertained.—Dr. L. Webster Fox entertained the Ophthalmological Society of the Medico-Chirurgical College, named in his honor, at the University Club, April 28.

New Branch Society Organized.—The petition for a Northwest branch of the Philadelphia County Medical Society, which was signed by a large number of representative physicians residing north of Huntington Park Way and east of Old York Road, was favorably acted on at the business meeting of the society, April 18.

Personal.—Dr. and Mrs. Harry K. Carey have sailed for England.——Dr. Charles Mitchell sailed for Europe, April 28. ——Dr. John H. Musser addressed the graduating class of nurses of the Harrisburg Hospital, April 17.——The home of Dr. T. Mellor Tyson in Rosemont was destroyed by fire April 23.——Dr. DeForest Willard, professor of orthopedic surgery in the University of Pennsylvania, is seriously ill at his home with pneumonia.——Dr. Ross V. Patterson, assistant chief resident physician of the Philadelphia General Hospital, has resigned.

To Aid San Francisco Physicians.—The Philadelphia County Medical Society held a special meeting, April 25, and formulated plans for the relief of San Francisco physicians, and appropriated $200 to the relief fund and appointed the following committee to further the movement: Drs. James M. Anders, J. F. Schamberg, William S. Wray, John H. Musser, Hobart A. Hare, Albert M. Eaton, John B. Turner, Thomas H. Fenton and C. L. Bower.——The Philadelphia Homeopathic Medical Society took similar steps and appointed a committee to further the movement.——The Alumni Society of the University of Pennsylvania and Jefferson Medical College have also taken steps to help their destitute brothers in the stricken city.

Health Report.—The total number of deaths reported for the week reached 587. This is an increase of 9 over the number reported last week, and an increase of 35 over the number reported in the corresponding week of last year. The principal causes of death were: Typhoid fever, 27; measles, 8; pertussis, 6; diphtheria, 17; meningitis, 5; consumption, 76; cancer, 26; apoplexy, 14; heart disease, 57; acute respiratory disease, 79; enteritis, 34; Bright's disease, 50; accidents, 28, and marasmus, 4. There were 332 cases of contagious disease reported, with 48 deaths, as compared with 357 cases and 27 deaths in the preceding week. There were 216 new cases of typhoid fever reported, with 27 deaths, as compared with 222 cases and 20 deaths reported in the previous week.

RHODE ISLAND.

Smallpox.—Two cases of smallpox have been discovered in pupils of the Darlington school, Pawtucket.

Isolation Hospital Burns.—Fire, which destroyed the Isolation Hospital, Woonsocket, April 8, caused a loss of about $4,700.

Sixty Years of Practice.—Dr. James W. C. Ely, dean of the medical profession of Providence, was the guest of honor at a dinner given by his fellow practitioners, April 27, in honor of the sixtieth anniversary of his entry into the practice of medicine.

Hospital Staff Changes.—Dr. Joseph C. Maranda has been appointed physician to the Woonsocket Hospital, vice Dr. Joseph Hils, deceased. Drs. William F. Barry, Elisha D. Clarke, J. Edgar Tanguay and Joseph T. Roswell have been appointed members of the staff of the hospital.

SOUTH CAROLINA.

Alumni Election.—The Alumni Association of the Medical College of the State of South Carolina, Charleston, held its annual meeting April 11, at which the following officers were elected: Dr. Robert S. Cathcart, Charleston, president; Drs. T. H. Tuten, Crockettsville; J. R. Bell, Due West; Henry Horlbeck, Columbia, and Arthur F. Doty, Sumter, vice-presidents, and Dr. C. Bunting Colson, Charleston, secretary and treasurer.

Insurance Fees.—Dr. William Weston, Columbia, S. C., sends us a copy of the following resolutions, which were adopted at the meeting of the State Medical Association, held in Columbia, April 17:

WHEREAS, Many of the life insurance companies have notified their medical examiners of a reduction of the examining fee from $5 to $3; and

WHEREAS, We, as physicians, realizing the responsibility incident to proper examination of the individual, believe such reduction to be unjust; therefore be it

Resolved, That in the House of Delegates, in session assembled, we do hereby declare such reduction to be unjust and respectfully request that no physician legally authorized to practice medicine in South Carolina accept such reduction of fee; and further that any physician accepting such reduction be guilty of a breach of professional courtesy.

Resolved, That it is the sense of the House of Delegates that hereafter in each examination for life insurance in which urine analysis is required the minimum fee shall be $5 and that when no such analysis is required the minimum fee shall be $3.

Resolved, That the several component societies forming this state association be requested to adopt these resolutions.

VIRGINIA.

Established Club Rooms.—The Newport News Medical Society has established headquarters in the Coleman Building, which will be open at all times, and where the current issue of medical journals, books of reference and other literature of value to the profession will be found on file.

SAN FRANCISCO CATASTROPHE.

Present Conditions in California—Needs of Physicians—The Work of Relief and Aid—List of Uninjured Physicians.

Report largely by telegraph from Dr. Philip Mills Jones.

The sanitary condition of the city is excellent considering the very limited water supply and the fact that all house toilets are ordered closed. Latrines and closets over sewers and manholes are generally used, and the latrines are covered with lime daily. No new cases of communicable diseases have been reported since the fire, and the deaths have been only 352, or about double the normal number. No cases of typhoid have yet been reported, although every preparation has been made to treat the disease should it occur. A typhoid hospital capable of holding 1,200 patients has been erected in Golden Gate Park. There are at present 47 cases of contagious disease in the city, mostly measles and scarlet fever. All are in quarantine and all were ill prior to April 18. All cases of tuberculosis have been sent to the San Francisco City and County Hospital, and all other cases to the contagious ward of the Children's Hospital or to the Emergency Contagious Disease Hospital at Harbor View.

The city has been divided into three sanitary districts in charge respectively of Drs. J. Henry Barbat, John M. Williamson and Charles E. Jones. Each of these districts is divided into eight subdistricts with from 15 to 20 physicians assigned to each. House-to-house inspection is made almost daily. Instructions are given to boil all water and milk, to cook all vegetables, and not to use the house closets, and the military authorities see that the orders of the sanitary inspectors are carried out.

Dr. E. C. Dalton, Salem, Ore., was one of the first to come to the city with supplies and established an emergency hospital which is doing most excellent work. Among others who came early to the assistance of the city are Dr. J. F. Shiels, New York City, and Dr. P. J. H. Farrell, Chicago, with about 30 other physicians. The health authorities report that there is now no necessity for outside medical aid, but that there is urgent need of medical supplies, drugs, medicines and minor surgical instruments.

Dr. Jones also says: "Please announce that it is almost impossible to get private telegrams from San Francisco east, as the press is monopolizing all lines. Also announce that there will be destitution among San Francisco physicians, and that as county officers can not be found, remittances should be sent to Dr. Frank Adams, ex-president of the Medical Society of the State of California, 1230 Telegraph Avenue, Oakland, or to myself, at the same address, and all funds will be turned over by us to the officers of the county society as soon as possible.

"The *California State Medical Journal* for May, of four pages only, is now on the press.

"No one not here can have the faintest idea of the situation. Please publish my thanks for many telegrams as regards my personal safety and for many offers of help."

Dr. D. W. Montgomery has notified THE JOURNAL that the following physicians and their families are saved and uninjured: Drs. William C. Riley, Joseph Bayer, E. F. Donnelly, George H. Powers, A. Barkan, Philip Collischonn, Dr. Barndt, Dr. Hadely, S. Cleary, A. B. Grosse, René Bine, A. P. O'Brien, H. M. Sherman, S. J. Hunkin, W. H. Barbat, W. W. Kerr, John Gallwey, Douglass W Montgomery, W. B. Lewitt, Morris Herzstein, W. S. Thorne, W. Thorne, Lucia M. Lane, Virginia Smiley, Emma Sutro Merritt, Edna Field, George W. Merritt, and Victor Vecki. Dr. J. N. Williamson received a scalp wound from a falling brick, but was otherwise uninjured. Dr. Rether's family is safe.

The St. Louis Medical Society to May 1 had collected $464 for the physicians of California who need aid as a result of the earthquake and fire.

The Norfolk District (Mass.) Medical Society, at a special meeting, April 24, voted to omit the usual dinner on the occasion of the annual meeting, and instead, to contribute $300 for the medical fraternity of California.——The Suffolk District Medical Society has appropriated $500 for the same purpose.

A benefit for the women physicians of San Francisco will be given by the women physicians of Philadelphia in the Broad Street Theater, May 29.

THE CALIFORNIA FUND.

Subscription List Opened for Relief of Physicians in Need.

As announced last week, the Board of Trustees has authorized that the columns of THE JOURNAL be opened for subscriptions to a fund for the relief of those physicians who have been left in destitute circumstances through the California earthquake and fire. The local committee in Chicago to have supervision of the fund in behalf of the American Medical Association consists of: Dr. Frank Billings, Treasurer of the American Medical Association, Chairman; Dr. M. L. Harris, Resident Trustee of the American Medical Association; Dr. C. S. Bacon, Chairman of the Section on Obstetrics and Diseases of Women, and President of the Chicago Medical Society; Dr. R. B. Preble, Chairman of the Chicago Medical Society Committee, and Dr. George H. Simmons, Editor of THE JOURNAL of the American Medical Association.

Subscriptions are solicited from those who feel able to give. Make checks payable to the American Medical Association, marking the check "California Fund." Send to the American Medical Association, 103 Dearborn Avenue, Chicago, marking the envelope in lower left-hand corner, "California Fund." An acknowledgment will be made in THE JOURNAL of each contribution. Local or county societies that wish to make a contribution as a body and prefer to send it through the American Medical Association Fund, may do so and credit will be given to the society and the names of the individual contributors will also be printed.

The question regarding the acceptance of contributions from those not members of the medical profession was discussed by the committee representing the American Medical Association, and it was agreed that such contributions already made be accepted with thanks. The committee decided, however, that as this fund is for physicians only and intended as a donation by the profession to its brethren in need, that outside contributions hereafter be declined.

The following contributions, not acknowledged last week, have been received up to 9 o'clock Wednesday morning:

INDIVIDUAL CONTRIBUTIONS.

J. F. Jenkins, Tecumseh, Mich.	$ 5.00
Frank C. Todd, Minneapolis	10.00
C. H. Vinton, Wernersville, Pa.	5.00
N. H. Kern, Thawville, Ill.	2.00
G. L. Greenawalt, Fort Wayne, Ind.	10.00
W. C. Wightman, Wayne, Neb.	5.00
J. F. Burnham, Lawrence, Mass.	2.00
Henry Belt, New York	5.00
W. Q. Spilling, Lonaconing, Md.	2.00
R. J. Curdy, Kansas City	5.00
W. C. Kelley, Morgantown, W. Va.	5.00
Frederick Peterson, New York	25.00
D. D. Monroe, Hillrose, Colo.	2.00
C. A. Kirkley, Toledo, Ohio	15.00
F. B. Harrington, Boston	25.00
R. G. Cook, Rochester, N. Y.	5.00
C. B. Turner, Bluemont, Va.	1.00
Physicians' Defense Co., Fort Wayne, Ind.	200.00
T. J. Happel, Trenton, Tenn. (additional)	5.00
W. A. Chamberlin, Waseca, Minn	5.00
C. C. Stephenson, Little Rock, Ark.	5.00
S. W. Woodyard, Greeneville, Tenn	2.00
W. J. Judy, Dunlevie, W. Va.	1.00
Wm. Jacobsohn, New York	1.00
O. S. Werner, Lindstrom, Minn	$ 1.00
B. W. Hale, Tallula, Ill.	5.00
E. F. Cushing, Cleveland, Ohio	50.00
T. E. Holland, Hot Springs, Ark.	25.00
J. N. and A. T. McCormack, Bowling Green, Ky.	100.00
	529.00
Acknowledged last week	342.00
Total	$871.00

CHICAGO MEDICAL SOCIETY CONTRIBUTIONS.

The following amounts have been received through the committee appointed by the Chicago Medical Society since the list of last week:

Abt, A. I.	$25.00	Herrick, J. B.	$25.00
Abt, J. I.	5.00	Hess, F. A.	5.00
Alcorn, S. J.	5.00	Hess, J. H.	5.00
Allport, W. H.	10.00	Hillemeyer, W. A.	2.00
Anderson, J. A.	5.00	Hobson, Sarah M.	5.00
Anonymous	1.00	Holmes, E.	2.00
Armstrong, J. B.	5.00	Hosmer, A. B.	5.00
Babcock, Robert	25.00	Howland, E. D.	3.00
Baker, W. E.	2.00	Hunt, J. S.	5.00
Bannister, H. M.	4.00	Hunt, Marie L.	2.00
Barnes, Walter S.	10.00	Hyde, James N.	15.00
Barrett, C. W.	10.00	Jennings, J. A.	10.00
Bass, G. E.	10.00	Johannes, A. D.	3.00
Baumann, E. S.	4.00	Johnson, Frank S.	20.00
Baumrucker, O.	1.00	Jones, C. S.	2.50
Beck, E. G.	5.00	Kales, J. D.	5.00
Benz, F. A.	5.00	Karl, Herz	3.00
Best, John E.	3.00	Kauffman, J. S.	5.00
Bettman, Boerne	5.00	Kercher, John	5.00
Betz, H. E.	2.00	Kerr, Ellis K.	5.00
Bevan, A. D.	50.00	King, C. B.	5.00
Blankini, A.	5.00	Kreissl, F.	10.00
Bieringer, W. A.	5.00	Krueger, J. H.	2.00
Billig, G. W.	5.00	Lackner, E.	10.00
Boehm, P.	10.00	Lagorio, Antonio	5.00
Borucki, F. M.	1.00	Lawrence, Robert	4.00
Bray, H. T.	3.00	Leonard, R. L.	5.00
Braylon, S. H.	5.00	Loeb, Ludwig M.	5.00
Brinckerhoff, C. E.	5.00	Loew, Alex.	5.00
Brouillet, R. J.	2.00	Loew, Arthur	10.00
Brown, Janetta I.	3.00	Luckhardt, Albert E.	2.00
Brown, R. R.	2.00	Ludwig, H. M.	5.00
Brumback, A. H.	10.00	Lyons, John A.	5.00
Bushnell, Charles H.	10.00	McArthur, L. L.	25.00
Butterman, W. F.	10.00	McEwen, E. L.	5.00
Cameron, A. M.	5.00	McGrath, M. H.	10.00
Casselberry, W. E.	5.00	McGrory, J. J.	5.00
Champlin, S. A.	2.50	Maclay, O. H.	5.00
Chandler, F. E.	10.00	McLaughlin, A. W.	5.00
Chenoweth, C.	5.00	MacLellan, Chas.	4.00
Chicago Society of Internal Medicine	309.00	McQuarrie, J. K.	5.00
Christie, E.	10.00	Maguy, F. A.	5.00
Christoph, E. O.	5.00	Marquis, G. P.	25.00
Clark, Jennie B.	5.00	Martin, William	25.00
Cleveland, G. W. H.	10.00	Maschek, F. J.	5.00
Cobb, J. P.	10.00	Matthei, Ph. H.	5.00
Conley, T. J.	5.00	Memelsdorf, A.	3.00
Contributions received by John S. Davis	21.00	Merrill, J. D.	5.00
Courtright, C. W.	5.00	Mettler, L. Harrison	10.00
Corbett, M.	5.00	Miller, J. L.	5.00
Croftan, A. C.	5.00	Mitchel, O. L.	5.00
Cuthbertson, Wm.	5.00	Mix, C. L.	5.00
Dal, J. W.	5.00	Mochen, Sidney B.	5.00
David, F. E.	5.00	Moessner, F. R.	1.00
Davis, N. S.	5.00	Monash, D. F.	5.00
Davis, T. A.	25.00	Moore, M. T.	5.00
Decker, Adolph	2.00	Motter, Thomas I.	10.00
Delamater, N. B.	5.00	Moyer, H. N.	25.00
Delprat, J. C.	10.00	Mueller, Frederick	10.00
Detlefsen, F.	5.00	Nash, T. Wylie	1.00
Dewey, Richard	5.00	Nelson, Daniel T.	5.00
Dewitz, O. J.	2.50	Nelson, Engelbrecht	5.00
Dinet and Delfosse	25.00	Novak, Anna F.	5.00
Duncan, Wm. E.	5.00	O'Brien, G. G.	5.00
Edgar, George J.	5.00	Ochsner, Albert J.	25.00
Ehrmann, F. J. E.	15.00	Ochsner, E. H.	10.00
Evatt, William	2.00	Parks, William R.	25.00
Faber, Paul J.	10.00	Patera, F. J.	10.00
Faith, Thomas	10.00	Patton, E. P.	4.00
Fisher, F. A.	5.00	Pech, Albert	5.00
Fischkin, E. A.	5.00	Pickard, W. S.	5.00
Fishman, L.	2.00	Pierron, J. J.	10.00
Fowler, J. V.	10.00	Pietrowicz, S. R.	5.00
Framed, A. K.	3.00	Pigall, Joseph S.	10.00
Frankenthal, Lester	25.00	Plummer, S. C.	5.00
Froom, A. E.	5.00	Porter, John L.	5.00
Frothingham, H. H.	5.00	Podstata, V. H.	5.00
Gaebler, A.	5.00	Porter, Robert H.	10.00
Galloway, G.	5.00	Pusey, William Allen	10.00
Glenn, F. L.	5.00	Quales, N. T.	10.00
Goldsmith, A. A.	5.00	Quirk, John	10.00
Goldspohn, A.	15.00	Raymond, Henry I. (Columbus, Ohio)	8.00
Goodkind, M. L.	50.00	Reading, A. H.	5.00
Gowen, Guy A.	10.00	Reading, E. M.	10.00
Graves, Robert	5.00	Redlich, H.	5.00
Hagens, G. J.	5.00	Reis, Emil	25.00
Hardy, H. T.	5.00	Reise, John A.	2.50
Harnisch, F. C.	5.00	Renn, T. H.	5.00
Hartman, F. S.	25.00	Rezanka, G. W.	5.00
Harvey, P. F.	10.00	Rhodes, J. E.	10.00
Head, G. P.	5.00	Roan, C. F.	5.00
Heineck, A. P.	10.00	Roehler, H. D.	2.00
Henrotin, Fernand	50.00	Root, Eliza H.	5.00
Hequembourg, J. E.	5.00	Rosenberg, A. J.	5.00

Sanderson, E. T.	$10.00	Thometz, J. J.	$ 5.00
Salisbury, J. H.	5.00	Train, J. A.	5.00
Sanford, W. C.	5.00	Trowbridge, E. G.	6.00
Schroeder, W. E.	10.00	Urheim, J. L.	5.00
Schultze, M.	5.00	VanDellen, R. L.	5.00
Schwab, Leslie W.	3.00	Wallace, John R.	5.00
Scott, W. F.	5.00	Walls, F. X.	25.00
Seufert, Edward C.	5.00	Vanderhook, H. W.	5.00
Sharp & Smith	50.00	Wagner, Carl	10.00
Shears, Geo. F.	25.00	Williams, J. F.	5.00
Shockey, G. C.	1.00	Weatherford, Franklin A.	5.00
Simon, Ludwig S.	10.00	Webster, E. M.	5.00
Small, Arthur A.	15.00	Webster, G. W.	10.00
Smith, Julia H.	5.00	Webster, J. Clarence	100.00
Smith, Robert A.	5.00	Wendtt, C. D.	10.00
Stearns, William G.	10.00	Wenzlick, Wm.	5.00
Steele, D. A. K.	25.00	Whalen, C. J.	5.00
St. John, Leonard	25.00	Whise, Melchior	2.00
Stolp, B. C.	25.00	White, W. S.	10.00
Storer, W. D.	10.00	Whitford, William	5.00
Stubbs, J. Chase	5.00	Wild, Theo.	5.00
Swenson, Carl G.	5.00	Wild, Theo. Jr.	5.00
Taliaferro, A.	5.00	Wilkinson, L.	5.00
Thilo, G.	10.00	Worthington, Harry C.	5.00
Thome, A. G.	5.00	Young, L. M.	5.00
			2,350.00
Acknowledged last week			1,023.00
Total Chicago Med. Soc. contributions			3,373.00
Total individual contributions			871.00
Grand total			$4,244.00

GENERAL.

No Longer Members of the Proprietary Association.—The Purdue Frederick Company asks us to announce that the firm is no longer a member of the Proprietary Association of America.

National Tuberculosis Association.—The second annual meeting of the National Association for the Study and Prevention of Tuberculosis will be held at the New Willard Hotel, Washington, D. C., May 16-18. Among the papers to be read are: "Immunity in Tuberculosis," Dr. Simon Flexner, New York; "Tuberculosis Nostrums," Samuel Hopkins Adams, New York; "Industrial Sickness Relief Associations and Tuberculosis," Dr. Arnold C. Klebs, Chicago; "The Kidneys in Tuberculosis," Dr. Joseph Walsh, Philadelphia; "Common Errors in the Technic of Examining Sputum for Tubercle Bacilli," Dr. Charles L. Minor, Asheville; "Therapeutic Use of Tuberculin Combined with Sanatorium Treatment of Tuberculosis," Dr. Edward L. Trudeau, Saranac Lake. Others speakers will be Drs. Frank Billings, John S. Fulton, J. W. Irwin, M. P. Ravenel, Vincent Y. Bowditch, Karl von Ruck, L. Hektoen, Theobald Smith, Norman Bridge, Sherman J. Bonney, S. A. Knopf, Robert G. Le Conte, Charles H. Mayo, Joseph Bloodgood, W. P. Northrup, A. Jacobi, John Lovett Morse, J. P. Crozer Griffith, etc. A round-trip rate of one and one-third fares on the certificate plan has been granted by the Trunk Line Association, and other associations are expected to do the same.

FOREIGN.

Increase of Pulmonary Tuberculosis Among School Teachers in Great Britain.—It is stated on reliable authority that phthisis is greatly on the increase among school teachers in Great Britain. It has been shown that by far the greater number of such cases occurred among those who had entered the teaching profession within the past few years. It is also said that the habits of the teachers have had much to do with this condition of things, as they stayed in the vitiated atmosphere of the schools too long.

Organization of the Profession in Austria.—It is regarded as remarkable that the 900 country practitioners of lower Austria have so solidly united in their attempt to obtain more just remuneration from the authorities for vaccinating the poor and similar official duties. Their "passive resistance," as they call it,—the first effort at organization of the profession in Austria—has presented a solid front without a single backslider. The physicians in Vienna not only officially endorsed their stand, by resolutions and appropriations voted in the medical societies, but a personal canvass has been made to obtain the signed statement of individual physicians that they would not interfere or take the place of any of the resisting physicians under any circumstances. An unexpected but welcome result of this concerted action is that the numerous warring factions of physicians, representing various political parties, etc., have all been brought together and fused into one general committee for sustaining the organized action of their colleagues in lower Austria. The "passive resistance" was described in these columns on page 970. All signs point to a speedy and satisfactory outcome of the struggle.

The Boston Session

(*Continued from page 1377.*)

Faradization of the Motor Cortex of the Human Brain. James Hendrie Lloyd, Philadelphia.

Discussion to be opened on last two papers by Morton Prince, Boston.

Trauma as a Cause of Insanity. Charles W. Burr, Philadelphia.

The Serum Treatment of Exophthalmic Goiter. J. J. Putnam and G. A. Waterman, Boston.

The Pathology of Paralysis Agitans, with a Report of 12 Cases of Necropsy. C. D. Camp, Philadelphia.

Personal Experience in the Treatment of Tabes by Coördinative Exercise. E. W. Taylor, Boston.

Multiple Neuritis, Non-diphtheritic, in Children. H. M. Thomas and H. S. Greenbaum, Baltimore.

A Hypothesis of the Iris Reaction in Convergence, and a Method of Testing this Reaction Clinically. William Pickett, Philadelphia.

Landry's Paralysis, with a Report of Four Cases. J. N. Hall and S. D. Hopkins, Denver.

Clinical Physiopathology: The Need of a New Classification of the Diseases of the Nervous System. L. H. Mettler, Chicago.

Attacks of Hysterical Aphonia Occurring in a Patient Subject to Typical Epileptic Seizures. Theodore Diller, Pittsburg, Pa.

The Gradual Cure of Hysterical Paralysis. Howell T. Pershing, Denver.

Neurasthenia as Modified by Modern Conditions and Their Prevention. Thomas C. Ely, Philadelphia.

The Borderland of Insanity in Its Clinical Aspects. John Punton, Kansas City, Mo.

A Further Study of Association Neuroses. John E. Donley, Providence, R. I.

Prolonged Periods of Unconsciousness in Epileptic and Allied States. Harold N. Moyer, Chicago.

The Therapeutic Outlook in Epilepsy. W. P. Spratling, Sonyea, N. Y.

The Remedial Value of the Prolonged Warm Bath in Cerebrospinal Irritability. Edward B. Angell, Rochester, N. Y.

Correspondence

INSURANCE EXAMINATION FEES.

A Protest from Dr. McCormack, and a Plea That Physicians Stand Together in Opposition to a Gross and Unnecessary Injustice.

BOWLING GREEN, KY., April 30, 1906.

To the Editor:—The simultaneous and uniform reduction of fees for medical examinations recently made by the Mutual Life of New York, the Equitable and several other old line life and accident insurance companies, and the other information bearing on the same point, leaves little room for doubt that this was done as the result of a carefully prearranged and concerted understanding. Sprung on us midway between the meetings of our national and state associations, without even the courtesy of a notice, or an opportunity for conference or protest, as employers would not now attempt to do in dealing with miners or bricklayers, the profession was taken completely by surprise. Expecting some official action by their organizations, many quietly put the formal acceptance of the reduction requested by the companies in the waste-basket, while many others, without advisors, and not knowing what their competitors would do, reluctantly and resentfully signed and returned the agreement. It was all an adroit and well devised plan of the companies to deal with the isolated and individual physician instead of with the organized profession.

And there were abundant reasons for believing that it would succeed. Eleven years before the New York Life, the original and arch sinner against the best interests alike of their policyholders and the profession in this regard, had cut its fee in the same unceremonious and discourteous way, and probably a majority of leading physicians in all sections of the country failed to resent the recognized indignity. At that time we

had no real organization anywhere, the profession was living in more or less suspicion and discord in most communities, and many felt that it would be useless to offer single-handed resistance to this then respected and powerful corporation. But it is far different now. We already have societies in over 2,400 of the 2,830 counties in the United States, with a total of 60,000 members, embracing nearly all of the more progressive and intelligent elements of the profession, and our organization is fresh in its infancy. The counties not yet organized are in the sparsely settled regions, and most of those outside of the membership where societies exist want to come in and co-operate with us for the promotion of their own and the common welfare.

In most states many individual county societies have acted promptly in this matter, even without the leadership and concert of action so much needed, while in several states steps have been taken to secure uniform resistance to the injustice. The society of Pike County, Illinois, pledged its members to make no examinations for old line companies for less than $5, or for industrial or fraternal orders for less than $2 or $3, and has requested every other county society in the state to join in the movement. I have been present at meetings almost daily for four weeks where this request met with a most cordial response. A similar policy has been inaugurated in Kentucky and other states and can easily be made general, as the feeling is widespread, not only that the profession was most unjustly and unkindly treated in this matter, but that it was done in such a disdainful and discourteous manner that we can not submit to it without loss of prestige and dignity.

The requirements of medical examiners have always been exacting. It is now necessary that they should have had four years of special training and several years of practical experience before they are permitted to undertake this important duty. Their selection has always been made with care and from the highest class of the profession. This is eminently proper. Cheap and incompetent doctors are likely to prove as dangerous to the best interests of policy-holders in mutual insurance affairs as they have always been as family physicians. And now this large class of specially trained, selected and loyal men, without the common courtesy of notice or even so much as a "By your leave," are asked to submit to a uniform reduction of fees amounting practically to 40 per cent., as most examinations are for small policies. All this is done, too, under the specious and misleading plea of economy, under the leadership of such eminently worthy men as Mr. Paul Morton, who, without a day of training for his duties, was taken from a position of high honor, with a salary of $8,000, and put at the head of the Equitable on a salary of $80,000, and Messrs. Peabody and Orr, similarly lacking in special training, who have been made presidents respectively of the Mutual and New York Life on salaries of $50,000 each, the latter being equal to that paid to the President of the United States. These gentlemen succeeded to offices of which they are no doubt in every way worthy because of the scandal and popular outcry, never before equaled in the financial history of this country, at least partly due to the inordinate and disproportionate salaries paid their predecessors. On the false assumptions that their own compensation had been largely reduced, these still high salaried officials had scarcely warmed their new seats before they began to institute reforms at the expense of their medical subordinates, a popular and long-favored pastime with lay officials of almost every class. It is true that a reduction was made in other departments, in many of which there had been more or less scandal, of 20 per cent., but the medical department, against which, to the honor of our profession be it said, there has never come even a breath of suspicion, having no friends at court to make a plea for it, was summarily reduced 40 per cent. This would have been bad enough if our officials had been given a hearing in our behalf, but I submit that the manner in which it was all done was far more humiliating and hurtful than the financial loss and that it should provoke a manly and dignified resentment at the hands of every lover of his profession.

It is suggested that examiners who have not agreed to accept the reduction go on making examinations whenever requested to do, charging full fees in every instance, and bringing suit when not paid wherever legal service can be had on agents. It is advised that others who have formally accepted the reduction, under the impression that there would be no uniform resistance, write at once, recalling the same. Our friends are advised not to resign, but simply to "stand pat." In addition, it is urged that every medical man in this country begin at once, actively and persistently, to throw his influence to the Northwestern, Mutual Benefit, Massachusetts Mutual and other well-known and stable companies which have been more honestly and economically managed, and which have also refrained from this unkindness to our already underpaid profession.

If our friends are willing to give the time and trouble to this work which its importance demands, we can easily control the situation in several states and in a majority of counties in a few months, can demonstrate what organized medicine stands for in a small field, where no charity or sentiment is involved, and at the same time protect ourselves from injustice from other sources, and encouraged by what seemed would be our tame submission to this great wrong. It is almost equally important, while engaged in this work, to free our members once for all from the large and almost gratuitous work done for industrial and fraternal orders. This has been in the hands largely of the poorest and humblest in the profession, those least able to protect themselves, and for concerns which relatively sell insurance at the highest price. Their examination requirements are tedious and exacting, and we should insist that their fees be so regulated as to give our less fortunate brethren reasonable compensation.

It has been in my mind to suggest that examiners in every county in the United States secure the proxies of all policy-holders in their respective jurisdictions, in the name of the president, secretary or some designated representative of the Association, but it does not seem advisable to do this at present, if at all. It would be easy for the profession to become an important if not a determining factor in the reorganization of most of the companies. Our best interests and those of the policy-holders are mutual and inseparable. Old examiners have the names of all policy-holders in their respective jurisdictions on their ledgers, they know them personally, and on assurance that our representative will cooperate with the state insurance commissioners and others who are conservatively striving to free these corporations from the evils so long involving them, there should be no great difficulty in securing nearly every proxy in most counties. This would be greatly assisted by the fact that the legislature of New York has recently canceled all outstanding proxies and postponed the election of new directors until October. This is only a tentative suggestion which came into my mind, and it will not be pressed without the official sanction of the House of Delegates at Boston. It is important that all matters of grave concern like this should be managed in the broad, conservative and statesman-like way which will commend itself to all right-thinking people in and out of the profession.

State and independent journals are respectfully requested to give this a place in their columns, with such editorial comment as may be deemed proper. It is the duty of our organization, and especially of its official organs, intelligently and conservatively to guard every interest of the rank and file of the profession. The chief agency in doing this, and the source of all power for doing it, is in our system of county societies. Most of them have all the machinery ready at all times; they can be called together on short notice, and it is urged that they take such action everywhere as will best safeguard the rights and dignity of their members.

Speaking two or three times every day, and being on the road most of the time when not speaking, this communication has been prepared under great difficulties, and is very imperfect. I am not engaged in practice, will probably never make another insurance examination, and consequently have no personal interest in the matter. My reason for taking up the work was that I found our friends at sea about it, indignant and resentful, but without a plan for securing the concert of action so manifest in the policy of those who had visited this unnecessary and unmerited injustice on us, and after all, it

seemed to come more naturally to my department than any other. I found also that many of those to whom we are accustomed to look for guidance are busy men in other fields, not even indirectly connected with this interest, and hence it is difficult for them to appreciate its importance to the rank and file of the profession.

Since this was written it has been suggested by one of my best personal friends, who is equally interested in one of the great life insurance companies and our profession, that we ought to be estopped from resistance in this matter because we so long submitted to the same injustice from some of the other old line and all of the industrial and fraternal orders. As I have said, we were unorganized then and could only act as individuals. Whether old or new, acute or chronic the complaint is the same, and my suggestion is that the same remedy is indicated for all of the companies which have adopted this policy at any time, and that it be uniformly applied.

J. N. McCORMACK.

Marriages

WALTER W. HULL, M.D., to Miss Ruth Jones, both of Kearney, Neb., April 19.

LUCIAN DEMENT LEE, M.D., to Miss Nora Lawrence, both of Centre, Ala., May 1.

RALPH RAYBURN COBLE, M.D., to Miss Lucile Bowman, both of Spencer, Ind., April 23.

CHARLES L. RESONER, M.D., to Miss Marie Anderson, both of Hartford City, Ind., May 1.

HARRY K. CAREY, M.D., Philadephia, to Miss Constance M. Beddoe of Bedford, Ind., April 26.

ALBERT SETTLE, M.D., Kansas City, Mo., to Miss Beatrice Norman of Lawton, Okla., April 25.

CHESTER HARLAN CLARK, M.D., Beloit, Wis., to LENNA EMELINE JONES, M.D., of Chicago, April 27.

GEORGE S. ARMSTRONG, M.D., Spokane, Wash., to Miss Mary Agnes Meeds of Zanesville, Ohio, April 25.

STEPHEN B. SIMS, M.D., to Mrs. Sarah Guernsey, both of Frankfort, Ind., at Los Angeles, Cal., April 21.

H. M. IMBODEN, M.D., Clifton Springs, N. Y., to Miss Edith Sprecher Grabill of Lancaster, Pa., April 20.

DAVID GALEN MCCAA, M.D., Lancaster, Pa., to Miss May Estella Yeiser of Meyerstown, Pa., April 25.

MARTIN F. M. HARMANN, M.D., St. Louis, to Miss Margaret Elizabeth Johnson of Charleston, Mo., April 17.

MAURICE OSTHEIMER, M.D., Philadelphia, to Miss Martha Gibson McIlvain of Downingtown, Pa., April 18.

ALBERT S. THOMPSON, M.D., Mount Horeb, Wis., to Miss Marie Anderson of Minneapolis, Minn., April 18.

DARWIN E. BROWN, M.D., Diamondville, Wyo., to Miss Margaret Anneta Greer of Fort Madison, Iowa, April 10.

JOSEPH GOLDBERGER, M.D., assistant surgeon, United States Public Health and Marine-Hospital Service, Washington, D. C., to Miss Mary Farrar of New Orleans, April 19.

Deaths

Rhoades Stansbury Sutton, M.D. Department of Medicine of the University of Pennsylvania, Philadelphia, 1865; surgeon to Terrace Bank Hospital for Women, Allegheny, from 1883 to the present date; chief surgeon of the Second Brigade, Third Division of the First Army Corps in the Spanish-American War; ex-president of the American Academy of Medicine, Mississippi Valley Medical Association, and Pittsburg Obstetrical and Gynecological Society; in 1884 chairman of the Section on Obstetrics and Gynecology of the American Medical Association; for many years vice-president of the American Gynecological Society and president of the Pittsburg Gynecological Society; member of the British Medical Association; British Gynecological Society, and International Gynecological Society; for a long time proprietor of a hospital in Allegheny, known by his name; eminent as a gynecologist and abdominal surgeon, and a frequent contributor to the medical journals, especially those connected with surgery and gynecology, died suddenly from heart disease on a street car in Pittsburg, April 21, aged 65.

John C. Pegram, Jr., M.D. Harvard University Medical School, Boston, 1897; of Providence, R. I.; a member of the American Medical Association, American Academy of Medicine, Massachusetts Medical Society, Rhode Island Medical Society, Amos Troop Medical Club, Providence Medical Association and Friday Evening Medical Club; medical examiner for the city of Providence; visiting surgeon to the Rhode Island Hospital; orthopedic surgeon to St. Joseph's Hospital and the Rhode Island Catholic Orphan Asylum; demonstrator of anatomy in Brown University; consulting surgeon to Butler Hospital for the Insane; assistant surgeon of the First Rhode Island Light Infantry, died at the Corey Hospital, Brookline, Mass., April 26, from complications following an operation for appendicitis, a week before, aged 34.

George W. Beggs, M.D. Rush Medical College, Chicago, 1862; major and surgeon of the One Hundred and Sixth Illinois Volunteer Infantry during the Civil War; a member of the Iowa State Medical Society, Woodbury County Medical Society, and Association of Military Surgeons of the United States; for many years local surgeon to the Illinois Central and Chicago, Milwaukee & St. Paul railways, and for ten years president of the Sioux City College of Medicine, died at his home in Sioux City, April 10, from kidney disease, after an illness of two years, aged 68.

David B. Devendorf, M.D. Geneva (N. Y.) Medical College, 1845; for fifty years a practitioner of Walworth County, Wis.; assistant surgeon of the First Wisconsin Volunteer Infantry; later surgeon of the Nineteenth Wisconsin Volunteer Infantry, then chief surgeon of the Fourth Brigade, Eighteenth Army Corps; medical inspector under General Smith, and finally medical purveyor of the Army of the James under General B. F. Butler; physician for the Deaf and Dumb School at Delavan, died at his home in that city, April 24, from senile debility, aged 86.

Daniel David Quillian, M.D. Atlanta (Ga.) Medical College, 1889; a member of the American Medical Association and the Medical Association of Georgia; for seven years sanitary inspector and attending physician to the Georgia State Normal School, Athens; one of the most prominent physicians of Clark County, Ga., died at his home in Athens, April 17, from pneumonia, after an illness of one week.

Charles Fred Moulton, M.D. Dartmouth Medical School, Hanover, N. H., 1890; assistant ophthalmic surgeon to the Boston City Hospital; member of the American Academy of Medicine and Massachusetts Medical Society; a member of the medical staff of the Massachusetts Eye and Ear Infirmary, died at his home in West Roxbury, Boston, from tubercular meningitis, April 24, aged 40.

Thomas Jacob Garrigan, M.D. New York University, Medical Department, 1879; a member of the Massachusetts Medical Society and one of the founders of the Brookfield Medical Club; for many years a selectman and member of the board of trade of North Brookfield, Mass., died at his home in that city, April 20, from valvular heart disease, aged 51.

Frank L. Tozier, M.D. Bellevue Hospital Medical College, New York City, 1896, of Batavia, N. Y.; formerly of Washburn, Maine; surgeon to the New York State School for the Blind, Batavia, and member of the Genesee County Medical Society, died at the German Deaconess' Hospital, Buffalo, April 21, after an operation for appendicitis.

Thomas T. Beveridge, M.D. Department of Medicine of the University of Pennsylvania, Philadelphia, 1862, for many years a member of the staff of St. Elizabeth Hospital, Appleton, Wis., of which he was one of the founders, died at his home in Appleton, April 20, from catarrhal pneumonia, after an illness of three weeks, aged 63.

William R. Marsden, M.D. New York University, Medical Department, New York City, 1881; a member of the Medical Society of New York, the Oneida County Medical Society, Utica Medical Library Association and Utica Medical Club, died at his home in Utica, April 25, from acute nephritis, aged 52.

Benjamin Henry Burrell, M.D. Eclectic Medical Institute, Cincinnati, 1878; of Boston; from 1882 to 1884 professor of anatomy and physiology in Bates College, Lewiston, Maine; a member of the Massachusetts Medical Society, died suddenly at the home of his daughter in Denver, Colo., April 23, aged 53.

Hallet W. Thompson, M.D. Tulane University of Louisiana, Medical Department, New Orleans, 1900, a member of the American Medical Association, and a young practitioner of great promise, died at his home in Plantersville, La., March 5, it is supposed, from poison, accidentally administered.

Lorenzo Dow Glazebrook, M.D. Rush Medical College, Chicago, 1857; deputy revenue collector for the Ninth district of

Indiana for three years; in 1872 and 1885 representative in the General Assembly, died at his home in Knox, Ind., after an illness of six months, from senile debility, aged 76.

Benjamin Pennebaker, M.D. Department of Medicine of the University of Pennsylvania, Philadelphia, 1872; for 13 years physician-in-chief of the House of Correction; physician to the County Prison, Holmesburg, and to the Frankford Arsenal, died at his home in Philadelphia, April 25, aged 66.

William N. Cline, M.D. Department of Medicine of the University of Pennsylvania, Philadelphia, for many years a practitioner of Illinois, died at his home in Rialto, Cal., Nov. 29, 1905, from prostatic hypertrophy and resultant kidney complications, after an illness of seven years, aged 84.

Edward W. Lane, M.D. Oglethorpe Medical College, Savannah, Ga., 1857; University of Louisville, Medical Department, 1859, of Butts, Ga.; once president of the Georgia Medical Association, and in 1890 and 1891 a state senator, died at the home of his son in Millen, Ga., April 15, aged 82.

Louis C. Blitz, M.D. University of Louisville, Medical Department, 1897, a member of the faculty of his alma mater and a member of the Louisville Academy of Medicine, died at the Jewish Hospital, Louisville, April 25, from meningitis following an operation for mastoiditis, aged 34.

John Fruit, M.D. Jefferson Medical College, Philadelphia, 1881, physician in charge of the Hazelton (Pa.) Hospital during the smallpox epidemic, 1891, died at his home in Hazelton, April 16, from carcinoma of the stomach, after an illness of eight months, aged 46.

Jacob C. Spohn, M.D. University of Michigan, Department of Medicine and Surgery, Ann Arbor, 1868, for forty years a practitioner of Rochester, Ind., but for the last ten years in St. Louis, died in a hospital in that city, April 19, after a surgical operation, aged 66.

Hugh W. McReynolds, M.D. Department of Medicine of the University of Pennsylvania, Philadelphia, 1848, for many years a prominent physician of Bloomsburg, Pa., and for one term treasurer of Columbia County, died at his home in Bloomsburg, April 25, aged 84.

Mauricio Flores y Fernandez, M.D. Howard University, Medical Department, Washington, D. C., 1903; a native of Havana, Cuba; a member of the Dauphin County Medical Society, died at his home in Harrisburg, Pa., February 2, from heart disease, aged 40.

Aaron J. Bates, M.D. Indiana Medical College, Indianapolis, 1873, a veteran of the Civil War, and for several years a member of the pension board of Kokomo, Ind., died at his home in that city, April 24, from pneumonia, after an illness of two days, aged 59.

Charles H. Tilghman, M.D. University of Maryland School of Medicine, Baltimore, 1866, a surgeon in the service of the Red Cross Society during the Franco-German War, died suddenly at his home in Baltimore, April 25, from angina pectoris, aged 60.

T. L. H. Cook, M.D. Tulane University of Louisiana, Medical Department, New Orleans, 1880, of Artesia, Miss., who was brought to Columbus, Miss., April 14, suffering from alcoholic insanity, died suddenly in the Columbus jail, April 17.

Charles Bradley, M.D. Jefferson Medical College, Philadelphia, 1875, formerly president of the Norristown board of health and coroner's physician of Montgomery County, Pa., died at his home in Norristown, April 25, aged 58.

Orrin F. Burroughs, M.D. University of Michigan, Department of Medicine and Surgery, Ann Arbor, 1869, a practitioner of Galesburg, Mich., for nearly fifty years, died at his home in that place, April 16, from senile debility, aged 79.

Joseph Hedges, M.D. College of Physicians and Surgeons in the City of New York, 1853, a member of the Medical Society of the State of New Jersey, died at his home in Newton, N. J., April 14, after a protracted illness, aged 76.

Charles W. Hilton, M.D. Tulane University of Louisiana, Medical Department, New Orleans, 1887, a member of the Tri-State Medical Society, died at his home in Monroe, La., April 20, after an illness of three weeks, aged 44.

Frank Donaldson, M.D. University of Maryland School of Medicine, Baltimore, 1883, of Los Angeles, Cal., for a time acting assistant surgeon, United States Army, died at San Francisco, April 12, from consumption, aged 49.

James M. Young, M.D. University of Louisville, Medical Department, 1860, surgeon in the Confederate service throughout the Civil War, died at his home in Bloomfield, Ky., April 19, after a lingering illness, aged 69.

Isaac Farrar, M.D. University of Vermont, Medical Department, Burlington, 1862, for thirty-five years a well-known lecturer, died at his home in Dorchester, Boston, April 23, after a lingering illness, aged 76.

Charles Miller Booth, M.D. Vermont Medical College, Woodstock, 1851, a noted expert on microscopy and botany, of Rochester, N. Y., died at his home in that city, January 8, from senile debility, aged 75.

Samuel L. Marston, M.D. Rush Medical College, Chicago, 1863, assistant surgeon of the Twelfth Wisconsin Volunteer Infantry during the Civil War, died at his home in Hartford, Wis., April 22, aged 78.

James Lindsay Trader, M.D. Jefferson Medical College, Philadelphia, 1871, twice coroner of Fayette County, Pa., died at his home in Connellsville, April 23, from cerebral hemorrhage, aged 59.

Israel T. Buckbee, M.D. Albany (N. Y.) Medical College, 1841, a member of the New York State Medical Society for 45 years, died at his home in Fonda, N. Y., April 25, aged 86.

Daniel B. Wise, M.D. Cleveland College of Physicians and Surgeons, 1874, died suddenly at his home in Mount Eaton, Ohio, April 16, from valvular heart disease, aged 55.

Emil Hertel, M.D. Jefferson Medical College, Philadelphia, 1883, died at his home in Wilmington, Del., from chronic fibroid pneumonia, after an illness of two years, aged 50.

George Owen Willis, M.D. Royal College of Physicians, Edinburgh, Scotland, 1876, died suddenly in his apartment, in Grass Valley, Cal., April 14, from cirrhosis of the liver.

Samuel C. Allaband, M.D. Department of Medicine of the University of Pennsylvania, Philadelphia, 1865, died at his home in Philadelphia, Sept. 18, 1905, aged 63.

Caroline M. Niemann, M.D. Hering Medical College and Hospital, Chicago, 1900, died at her home in Chicago, Aug. 22, 1905, from pulmonary tuberculosis, aged 37.

Robert S. Peyton, M.D. Jefferson Medical College, Philadelphia, 1852, died at his home in Pinckneyville, Ill., Jan. 16, 1905, from cancer of the stomach, aged 75.

William W. Pierce, M.D. College of Physicians and Surgeons, Keokuk, Iowa, 1876, died at his home in Findlay, Ill., Aug. 17, 1905, from hepatic colic, aged 71.

Preston Minor, M.D. University Medical College of Kansas City, 1900, died at his home in Sheridan, Wyo., April 20, from typhoid fever, aged 34.

Thomas H. Johnson, M.D. Cincinnati College of Medicine and Surgery, 1854, died at his home in Clarksburg, Ind., April 22, after an illness of several weeks, aged 79.

Amos G. Driver, M.D. University of Michigan, Department of Medicine and Surgery, Ann Arbor, 1899, died at his home in Carrollton, Ill., January 30, aged 29.

Ida Dole Nicholson, M.D. Bennett College of Eclectic Medicine and Surgery, Chicago, 1899, died at her home in Los Angeles, Cal., Jan. 1, 1905, aged 42.

Charles M. Shiltneck, M.D. College of Physicians and Surgeons, Baltimore, 1880, died at Burkittsville, Md., April 24, from internal hemorrhage, aged 46.

J. G. Porter, M.D. Chicago Homeopathic Medical College, 1899, of Clinton, Ill., died in Hahnemann Hospital, Chicago, April 24, after a surgical operation.

William T. Roberts, M.D. Harvey Medical College, Chicago, 1905, died at his home in that city from rupture of an aortic aneurism, Sept. 17, 1905, aged 30.

Granville, I. Smart, M.D. Dartmouth Medical College, Hanover, N. H., 1880, formerly of Blue Earth, Minn., died recently at his home in Ontario, Cal.

Herman Kirschstein, M.D. University of Breslau, Germany, 1862, one of the oldest German physicians of Chicago, died at his home, April 29, aged 77.

John E. Coyle, M.D. University of Tennessee, Medical Department, Nashville, 1892, formerly of Paducah, Ky., died recently at Wewaka, I. T.

Thomas P. Lark, M.D. Rush Medical College, Chicago, 1871, died at his home in Ruma, Ill., Aug. 8, 1905, from valvular heart disease, aged 63.

Elkanah Alonzo Thoman, M.D. Eclectic Medical Institute, Cincinnati, 1875, of Bucyrus, Ohio, died at his home in Los Angeles Cal., April 25.

Edwin J. Bertenshaw, M.D. Miami Medical College, Cincinnati, 1893, of Elk City, Kan., died recently at Bartelsville, Kan., aged 37.

E. Collins Blaisdell, M.D. Albany (N. Y.) Medical College, 1858, died at his home in Quincy, Ill., Dec. 22, 1905, from paralysis.

Daniel P. Dailey, M.D. Hospital College of Medicine, Louisville, 1890, died at his home in Birds, Ill., Aug. 16, 1905, aged 48.

Colmore Harris, M.D. (Years of Practice, Illinois), 1878, died at his home in Boos Station, Ill., May 7, 1905, from tumor, aged 77.

Franz Baeumer, M.D. American Medical College, St. Louis, 1875, died at his home in New Athens, Ill., in January, aged 64.

Frank W. Gross, M.D. Eclectic Medical Institute, Cincinnati, 1860, died at his home in Chrisman, Ill., Jan. 28, 1905, aged 69.

George W. Hyde, M.D. Eclectic Medical Institute, Cincinnati, 1876, died at his home in Clinton, Ill., Sept. 5, 1905, aged 76.

John W. Rawlins, M.D. Medical College of Indiana, Indianapolis, 1888, died at his home in Jewett, Ill., February 4.

D. M. Stewart, M.D. Iowa Medical College, Keokuk, 1869, died at his home in Denton, Texas, April 19, aged 81.

William H. Phillips, M.D. (Years of Practice, Pennsylvania), died at his home in California, Pa., April 22, aged 67.

George Shamhart, M.D. (Years of Practice, Illinois), 1877, died at his home in Latona, Ill., January 24, aged 84.

Job Sweet, M.D. (Years of Practice, Massachusetts), died at his home in New Bedford, Mass., April 22, aged 78.

Francis McGuire, M.D. Rush Medical College, Chicago, 1868, died recently at his home in St. Cloud, Minn.

Jacob F. Stough, M.D. (Examination, Ohio), died at his home in Warren, Ohio, April 14, aged 73.

Death Abroad.

Lionel Smith Beale, M.B. London, 1851; M.R.C.P. London, 1856; F.R.C.P. London, 1859; Baly Medal R.C.P. 1871 Croonian Lecturer, Royal Society, 1865; Lumleian Lecturer, R.C.P., 1875, has died in London from pontine hemorrhage, aged 78. In 1896 he had a slight attack of cerebral hemorrhage or thrombosis. Born in London, the son of a doctor, he was educated at King's College. His career was remarkable. A year after taking his degree he established a private chemical and microscopic laboratory for teaching and original research. In 1853, though only 25 years of age, he was appointed professor of physiology and general and morbid anatomy at King's College, a post for which the late Professor Huxley was a candidate. He soon established a reputation as a learned and lucid teacher. He was a great worker and incessantly wrote papers for the Royal Society on original microscopic investigations. At the age of 25 he published the first edition of his most successful book, "How to Work with the Microscope." He afterward published a work, "The Microscope in Medicine." He was constantly engaged in controversies with those who sought to give a purely physical explanation of the phenomena of life, and in his book on "Protoplasm of Life, Matter and Mind," strenuously maintained that vital action transcended physical and chemical phenomena. In 1876 he was appointed professor of principles and practice of medicine and was made consulting physician to King's College Hospital. He soon established a reputation as a practical physician and his powers are shown in his most useful work, "Slight Ailments: Their Nature and Treatment." He possessed an extraordinary power of diagnosis by facies. At the age of 29 he received the great distinction of fellowship in the Royal Society. Of the many papers he read at the society perhaps the most important was on "The Ultimate Nerve Fibers Distributed to the Muscles and to Some Other Tissues." His publications on clinical medicine were numerous. They included books on "The Liver," "Kidney Diseases, Urinary Deposits and Calculi," "The Mystery of Life," "Our Morality and the Moral Question."

Queries and Minor Notes

ANONYMOUS COMMUNICATIONS will not be noticed. Queries for this column must be accompanied by the writer's name and address, but the request of the writer not to publish name or address will be faithfully observed.

THE AUTOMOBILE FOR THE PHYSICIAN'S USE.

DR. I. J. KERR, Cleveland, O., writes: "I have read your articles on 'Automobiles for Physicians,' and find them very valuable, giving the opinions of so many men from their various standpoints and in their different locations. I think you have conferred a great favor on the physicians of the United States in collecting and publishing these series of opinions. I am especially interested now in the subject of purchasing an automobile."

DR. ROBERT ALGIE, Lima, Kan., writes: "I have had a good deal of trouble, especially with tires. I notice that Dr. Collins speaks of four-inch solid tires. Now I want something of that kind. All of the solid tires I have seen listed are smaller than pneumatics, and as my wheels are very low, I want something that will, if possible, make them higher."

DR. J. D. SOUTHARD, Fort Smith, Ark., says: "I predict that this issue of THE JOURNAL will increase the sale of autos more than any other one thing that has ever happened. Thank you for taking the matter up in the splendid way you did."

DR. E. P. STIMSON, Tiverton, R. I., writes: "Since your announcement that you would issue an automobile number I have been looking forward to it to learn whether I should purchase an auto or not. There is one point which was not, as I noticed, touched on: If business slacks up and you do not have full draft on your horses, the expense goes on just about the same for food, while if the auto is idle, it costs only interest on investment."

DR. AUGUSTUS A. ESHNER, Philadelphia, writes: "I want to congratulate you on your automobile number. I am sure it will be instructive to many who are undecided or are novices. I shall try to interest the agent for the sale of the machine I have, with the hope of securing special interest for cars for medical men. You should now be able to obtain a generous amount of advertising from automobile manufacturers, for physicians are good patrons, and the market is a constant one for a good and needed article."

DR. A. G. COUMBE, Vienna, Va., writes: "I congratulate you on the issue of April 21, as the motive power for physicians is of the greatest importance to us all, and the auto must receive our consideration. I have used a car for two years with more or less unsatisfactory results—not so much the car refusing to work, but the dirt and grease which I am compelled to get on my hands when I get caught, which has prevented me from operating frequently."

The Public Service

Army Changes.

Memorandum of changes of stations and duties of medical officers, U. S. Army, week ending April 28, 1906:

Powell, Wm. A., asst.-surgeon, left Jefferson Barracks, Mo., for St. Louis, to accompany medical supplies to, and for temporary duty at San Francisco.

Dutcher, B. H., asst.-surgeon, reported for temporary duty at Army General Hospital, Washington Barracks, D. C.

Gilchrist, H. L., and Davis, Wm. T., asst. surgeons, left General Hospital, Washington Barracks, D. C., with Co. A, Hospital Corps, en route to San Francisco, for temporary duty.

Chidester, W. C., asst. surgeon, leave of absence extended to June 5, 1906.

Hathaway, L. M., asst.-surgeon, left Fort Thomas, Ky., en route to St. Louis, for duty with medical supplies to and for temporary duty at San Francisco.

Hoff, John Van R., asst.-surgeon-general, and Johnson, R. W., surgeon, appointed members of an Army retiring board, to meet at the call of the president of the board, for the examination of such officers as may be ordered before it.

Bevans, James L., asst.-surgeon, granted ten days' leave of absence to take effect on the completion of his examination for advancement.

Byars, Caspar R., contract surgeon, relieved from duty at Fort Sam Houston, Texas, and ordered to Jefferson Barracks, Mo., for duty.

Newton, Ralph W., contract surgeon, ordered to duty with troops in the Yosemite National Park.

Wing, Franklin F., dental surgeon, left Fort Omaha, Neb., and arrived at Fort Washakie, Wyo., for duty; is ordered thence to Fort Robinson, Neb., and Fort Meade, S. D., and thence will return to Fort Riley, Kan.

Koyle, Fred T., contract surgeon, returned to Fort Bliss, Texas, from leave of absence.

McMillan, Clemens W., contract surgeon, left Fort Michie, N. Y., and arrived at Fort Crook, Neb., for duty.

Porter, Elias H., Grieger, Hubert, Hogan, David D., contract surgeon, arrived at San Francisco, April 26, on transport *Sherman*, for leave of absence from the Philippines Division.

Tuttle, George B., contract surgeon, arrived at San Francisco, April 26, on transport *Sherman*, for station in the United States.

Springwater, Samuel A., contract surgeon, arrived at San Francisco, April 26, on transport *Sherman*, for annulment of contract.

Navy Changes.

Changes in the Medical Corps, U. S. Navy, for the week ending April 28, 1906.

Old, E. H. H., asst.-surgeon, detached from the Naval Medical School, Washington, D. C., and ordered to the Naval Training Station, San Francisco.

Cordeiro, F. J. B., surgeon, discharged from treatment at the Naval Hospital, New York, and ordered to Washington, D. C., May 2, for examination in conformity with Title 15, Chapter 3, Revised Statutes, and thence home to wait orders.

Hoyt, R. E., P. A. surgeon, detached from the Naval Academy and ordered to the *Newark*.

Reed, E. U., asst. surgeon, ordered to the *Charleston*, May 1.

Dessez, P. T., asst.-surgeon, detached from the *Charleston* and ordered to the *Severn*.

Public Health and Marine-Hospital Service.

List of changes of station and duties of commissioned and non-commissioned officers of the Public Health and Marine-Hospital Service for the seven days ending April 25, 1906:

Nydegger, J. A., P. A. surgeon, granted seven days' leave of absence, from April 23, under the provisions of Paragraph 191 of the Regulations.

Blue, Rupert, P. A. surgeon, relieved from special temporary duty at Reedy Island Quarantine, and directed to report in Washington, D. C.

Blue, Rupert, P. A. surgeon, temporarily relieved from duty at Norfolk, Va., and from temporary duty in the Hygienic Laboratory in Washington, and directed to proceed to San Francisco for special temporary duty, on completion of which to rejoin temporary station at Washington, D. C.

Oakley, J. H., P. A. surgeon, directed to proceed from Port Townsend Quarantine Station, Port Townsend, Wash., to San Francisco, Cal., reporting to the medical officer in command for temporary duty.

King, W. W., P. A. surgeon, directed to proceed to Missoula, Mont., for special temporary duty, on completion of which to rejoin station in Washington, D. C.

McCoy, G. W., P. A. surgeon, relieved from duty in the Philippine Islands, and directed to return to the United States, reporting arrival in San Francisco by wire.

Burkhalter, J. T., P. A. surgeon, granted leave of absence for seven days under Paragraph 191 of the Regulations.

Burkhalter, J. T., P. A. surgeon, granted seven days' extension of leave of absence under Paragraph 191 of the Regulation.

Ebert, H. G., asst.-surgeon, directed to proceed from Seattle, Wash., to San Francisco, reporting to the medical officer in command for temporary duty.

Steger, E. M., asst.-surgeon, granted leave of absence for one month and twenty-three days, from May 17, 1906.

Goldsborough, B. W., acting assistant surgeon, granted leave of absence for three days, from April 24, 1906.

Hamilton, H. J., acting asst.-surgeon, granted leave of absence for five days, from April 25, 1906.

Nute, A. J., acting asst.-surgeon, transferred from Port Huron, Mich., to Ellis Island, N. Y.

Schug, F. J., acting asst.-surgeon, granted leave of absence for 15 days, from May 3, 1906.

Watters, M. H., pharmacist, directed to proceed to San Francisco, Cal., reporting to the medical officer in command for temporary duty.

McBride, Charles R., pharmacist, relieved from duty at Manila, P. I., and directed to proceed to Cebu Quarantine Station, reporting to the medical officer in command for duty and assignment to quarters.

Health Reports.

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, Public Health and Marine-Hospital Service, during the week ended April 27, 1906:

SMALLPOX—UNITED STATES.

Arkansas: Fort Smith, April 7-14, 2 cases.
California: Los Angeles, April 7-14, 5 cases.
Delaware: Wilmington, April 7-14, 2 cases.
Georgia: Augusta, April 9-23, 6 cases.
Illinois: Chicago, April 14-21, 2 cases.
Indiana: Indianapolis, April 15-22, 6 cases.
Louisiana: New Orleans, April 7-14, 21 cases (8 imported).
Maryland: Baltimore, April 14-21, 2 cases.
Michigan: Detroit, April 14-21, 2 cases.
New Jersey: Jersey City, April 15-22, 1 case; Passaic County, to April 10, 75 cases.
New York: Middletown, April 24, 4 cases; New York, April 14-21, 2 cases.
Ohio: Cincinnati, April 13-20, 17 cases.
Oregon: General, March 1-31, 23 cases.
Pennsylvania: Pittsburg, April 7-14, 1 death.
Tennessee: Memphis, April 7-14, 16 cases.
Texas: Houston, April 14-21, 4 cases.
Utah: General, March 1-31, 157 cases.
West Virginia: Wheeling, April 14-21, 3 cases.
Wisconsin: Appleton, April 14-21, 3 cases; Marinette, April 7-14, 4 cases.

SMALLPOX—INSULAR.

Philippine Islands: Manila, March 3-10, 4 cases, 1 death.

SMALLPOX—FOREIGN.

Africa: Cape Town, March 3-17, 18 cases.
Brazil: Bahia, March 3-24, 20 cases, 3 deaths; Pernambuco, March 1-15, 11 deaths.
Canada: Toronto, March 24-April 14, 10 cases.
Chile: Antofagasta, April 10, 14 cases, 6 deaths; Coquimbo, 12 cases, 4 deaths; Iquique, March 17-24, 8 cases, 4 deaths.
China: Hongkong: March 3-10, 13 cases, 11 deaths; Shanghai, 2 deaths.
Ecuador: Guayaquil: March 31-April 7, 5 deaths.
Germany: Stettin, March 30, 3 cases, 1 death.
Gibraltar: April 1-8, 2 cases.
Great Britain: Bristol, March 31-April 7, 2 cases; Liverpool, 1 case.
Greece: Athens, March 23-30, 1 death.
India: Bombay, March 20-27, 22 cases; Calcutta, March 10-17, 140 deaths; Karachi, March 18-25, 42 cases, 18 deaths; Madras, March 17-23, 40 deaths; Rangoon, March 10-17, 69 deaths.
Mexico: Tuxpam, April 4-11, 1 death.
Russia: Moscow, March 17-31, 49 cases, 4 deaths; St. Petersburg, March 24-31, 3 cases, 2 deaths.
Straits Settlements: Singapore, March 14, epidemic.
Turkey: Alexandretta, March 24-31, 1 case, 1 death.

YELLOW FEVER—FOREIGN.

Ecuador: Guayaquil, March 31-April 7, 23 deaths.

CHOLERA—INSULAR.

Philippine Islands: Provinces, Feb. 24-March 10, 139 cases, 113 deaths.

CHOLERA—FOREIGN.

India: Bombay, March 20-27, 802 deaths; Calcutta, March 10-17, 32 deaths.

PLAGUE—FOREIGN.

Australia: Brisbane, March 10, 1 case.
Chile: Antofagasta, March 19-April 2, 5 cases.
China: Hongkong, March 3-10, 15 cases, 10 deaths.
India: Bombay, March 20-27, 802 deaths; Calcutta, March 10-17, 134 deaths; Karachi, March 18-25, 68 cases, 59 deaths; Madras, March 17-23, 1 death; Rangoon, March 10-17, 65 deaths.
Peru: Callao, March 6-April 1, 2 cases, 1 death; Chiclayo, 4 cases, 3 deaths; Eten, 2 cases, 2 deaths; Lambayeque, 1 case, 2 deaths; Mansefu, 2 cases; Mollendo, 5 cases, 1 death; Paita, 10 cases; Pisco, 1 case, 2 deaths; Reque, 11 cases, 5 deaths; Trugillo, 49 cases, 17 deaths.

Society Proceedings

COMING MEETINGS.

AMERICAN MEDICAL ASSOCIATION, Boston, June 5-8.

Oklahoma Medical Association, Oklahoma City, May 8.
Indian Territory Medical Association, Oklahoma City, May 8.
Utah State Medical Association, Salt Lake City, May 8 9.
Nevada State Medical Society, Reno, May 8-9.
Louisiana State Medical Society, New Orleans, May 8-10.
Arkansas Medical Society, Hot Springs, May 8-10.
Montana State Medical Association, Butte, May 9-10.
Kansas Medical Society, Topeka, May 9-11.
Ohio State Medical Association, Canton, Ohio, May 9-11.
American Climatological Assn., Atlantic City, N. J., May 12-14.
American Assn. of Physicians, Washington, D. C., May 15-16.
Missouri State Medical Association, Jefferson City, May 15-17.
Iowa State Medical Society, Des Moines, May 16-18.
North Dakota State Medical Association, Fargo, May 16-17.
New Hampshire Medical Society, Concord, May 17-18.
Amer. Assn. of Path. and Bacteriologists, Baltimore, May 18-19.
American Gynecological Society, Hot Springs, Va., May 22.
Illinois State Medical Society, Springfield, May 15-17. (Note change of time back to date originally planned.)
Connecticut State Medical Society, New Haven, May 23-24.
Indiana State Medical Association, Winona Lake, May 23-25.
Michigan State Medical Society, Jackson, May 23-25.
Med. Soc. of State of North Carolina, Charlotte, May 29-31.
Rhode Island Medical Society, Providence, May 31.
American Dermatological Assn., Cleveland, May 30-June 1.
American Pediatric Society, Atlantic City, May 30-June 1.
American Surgical Association, Cleveland, May 30-June 1.
American Laryngological Assn., Niagara Falls, May 31-June 2.
American Assn. of Genito-Urinary Surgeons, New York, June 1-2.
American Academy of Medicine, Boston, June 2-4.
Amer. Assn. of Life Insurance Exam. Surgeons, Boston, June 4.
American Gastro-Enterological Assn., Boston, June 4.
American Urological Assn., Boston, June 4-5.
American Proctologic Society, Boston, June 5-6.
American Medico-Psychological Society, Boston, June 12-15.
Massachusetts Medical Society, Boston, June 12-13.
Maine Medical Association, Portland, June 13-15.
Minnesota State Medical Association, Minneapolis, June 20.
West Virginia State Medical Assn., Webster Springs, June 20-22.

MEDICAL AND CHIRURGICAL FACULTY OF MARYLAND.

The 108th Annual Meeting, held at Johns Hopkins University, Baltimore, April 24-26, 1906.

The President, DR. SAMUEL T. EARLE, in the Chair.

Society in Good Condition.

The reports showed that the society is in a flourishing condition financially. It possesses a library of 15,275 volumes, valued at $45,000, and portraits worth $5,000. Funds for the purchase of new books are provided by the Frick fund, the Baker fund, and the Book and Journal club. The library was used by a large number of people during the year and many duplicate volumes were given away to help other libraries. There are at present 921 members, of whom 434 are country members and 495 Baltimore members. During the year there were 8 deaths. The fund for the relief of widows and orphans of deceased members now amounts to $918.56; during the year one appropriation was made in the case of an aged widow whose only support was a son who was ill with typhoid fever.

Advocate Improved Medical Laws.

The secretary of the State Board of Medical Examiners reported that the answers to questions asked at the state board

examination showed a lack of proper training in the candidates. Resolutions were passed approving the minimum standard of requirements adopted by the American Medical Association, in July, 1905, and directing the committee on legislation to arrange for such changes in the medical laws of the state, to be presented at the next meeting of the legislature, as shall bring the laws into full conformity with these requirements. A committee was appointed to investigate the dispensary abuse and to devise ways of correcting it.

Approve Movement for Pharmaceutic Reform.

A resolution was also passed endorsing the action of the American Medical Association in establishing a Council on Pharmacy and Chemistry for the investigation of non-official drugs, endorsing the plan of action proposed by the council, and approving the change in the advertising columns of THE JOURNAL of the American Medical Association, and expressing the hope that THE JOURNAL will soon be free of all advertisements which may in any sense be considered objectionable.

Message of the President.

In his presidential address, Dr. Earle spoke of the imperative need of organization, and said that only a beginning has been made. He said that efforts should be made to have every physician in the state in the organization, and that the conditions of entrance should not be too rigid, but that every honorable and upright physician should be welcome, no matter what his sentiments. Dr. Earle urged allegiance to the profession and care in the selection of officers generally.

The Role of Pure Cow's Milk in Infant Feeding.

The annual oration was delivered by Dr. Jacobi. He stated that cow's milk is not a proper substitute for mother's milk, and no matter how it is modified it can never become so. He called attention to the fact that there was no artificial feeding in antiquity; artificial feeding of infants was first practiced, so far as we know, in 1500 A. D. It is only, he said, when a woman has no milk that the use of modified cow's milk is permissible, and only then when the more appropriate asses' milk is not obtainable. He mentioned in some detail the various disorders arising from a diet of cow's milk in young infants and the sequels to be expected such as rickets and allied conditions. He spoke of the advantages of buttermilk and said that too great uniformity in food is not to be desired. He urged the use of cane sugar in preference to milk sugar in the preparation of the cow's milk mixtures and dwelt strongly on the importance of copious dilution of the food, stating that this is best effected by the addition of cereal decoctions in place of mere water. He also referred to methods of preparing infant foods.

(*To be continued.*)

AMERICAN CONFEDERATION OF RECIPROCATING, EXAMINING AND LICENSING BOARDS.

Meeting held at Columbus, Ohio, April 25, 1906.

The President, DR. W. A. SPURGEON, in the Chair.

Report of Secretary.

The secretary, Dr. B. D. Harison, reported that the following states are members of the confederation: Ohio, South Carolina, New Mexico, District of Columbia, Wisconsin, Iowa, Kentucky, Indiana, Nebraska, Michigan, Georgia, Illinois, Kansas, Maryland, Oklahoma, Nevada and North Dakota.

The following states reciprocate under Qualification I: Illinois, Ohio, New Jersey, North Dakota, Virginia, Wyoming, South Carolina. Under Qualification II: Michigan, Wisconsin, Indiana, Iowa, Kansas, Nebraska, Maryland, Minnesota, Vermont, Missouri, Nevada, Maine, Georgia, District of Columbia. A number of these states are not members of the confederation, but have adopted its basis of reciprocal registration.

During the past year 699 reciprocal registrations were made by 12 of the states from which a report was obtained. Of this number 147 were issued under Qualification II and 452 under Qualification I. No report was received from 10 other reciprocating states.

Report of Committee on Modifications in Reciprocal Qualifications.

The committee recommended the substitution of the following for the requirements now in force:

PREREQUISITE CREDENTIALS.

As a prerequisite to reciprocal registration the applicant therefor shall file, in the offices of the boards of the state of which he is a licentiate and of the state where reciprocal registration is sought, such evidence of good moral and professional character as may be demanded by said boards, and such evidence, at the discretion of either board, may include proof of membership in a recognized medical society, and such membership may be considered in connection with the other evidences of character presented.

QUALIFICATION I.

A certificate of registration showing that an examination was less than that prescribed by the state in which an average grade of not less than 75 per cent. was awarded, the holder thereof having been at the time of said examination the legal possessor of a diploma from a medical college in good standing in the state where reciprocal registration is sought, may be accepted, in lieu of examination, as evidence of qualification. Provided, that in case the scope of the said examination was less than that prescribed by the state in which registration is sought, the applicant may be required to submit to a supplemental examination by the board thereof in such subjects as have not been covered.

QUALIFICATION II.

A certificate of registration, or license issued by the proper board of any state, may be accepted as evidence of qualification for reciprocal registration in any other state. Provided, the holder of such certificate had been engaged in the reputable practice of medicine in such state at least one year, and also provided that the holder thereof was, at the time of such registration, the legal possessor of a diploma issued by a medical college in good standing in the state in which reciprocal registration is sought, and that the date of such diploma was prior to the legal requirement of the examination test in such state.

The report was adopted.

Report of Committee on Uniform Entrance and Graduation Requirements.

The committee recommended as a substitute for the requirements adopted at Indianapolis, April 17, 1905, that, after July 1, 1906, the minimum requirement for registration in a medical college shall be a recognized diploma for a four-year high-school, college, academy or university, or a recognized equivalent certificate, such diploma or certificate having the following minimum standard: Academic work and examinations, 60 counts (a count represents one recitation a week for the school year). Required, 30 counts (after 1906, 35 counts), as follows: English, 10 counts; mathematics, 10 counts; Latin, 5 counts (10 counts after 1906); physics, 5 counts. Elective, 30 counts (after 1906, 25 counts), be chosen from the following: English, 10 counts; French, 10 counts; German, 10 counts; Spanish, 10 counts; Greek, 10 counts; drawing, 3 counts; history, including civics, 10 counts; botany, 5 counts; zoology, 5 counts; biology, 5 counts; chemistry, 5 counts; trigonometry, 2 counts; physical geography, 5 counts; physiology and hygiene, 5 counts. Conditions may be allowed not to exceed a total of 15 counts.

The report was adopted.

Report of Committee on Advanced Standing.

The committee suggested that the first clause of the present requirements be amended to read as follows:

Graduates holding degrees of A.B., B.S., or equivalent qualifications from a reputable college or university may be given credits not exceeding one year. Provided that the applicant for such credit shall produce evidence which will satisfy the state board of medical examiners of the state in which such credit is asked that he has done within 10 per cent. of all the work embraced in the minimum standard of requirements of the confederation in the following subjects: Histology, embryology, osteology, anatomy, physiology, chemistry and toxicology and bacteriology; and provided that any literary college which shall undertake this work shall in its catalogue announce the fact that it will give this first year of the medical course.

The report was adopted.

Primary Examination.

The following resolution was offered by the Ohio Board:

Resolved, That a certificate issued by a board covering credits received in a primary or junior examination held by said board may be received and given credit by the board of another state; provided that the primary examination shall only include the following subjects which must have been completed to the end of the second year, at least, in a recognized medical college in accordance with the standard medical curriculum of the confederation: Anatomy, physiology, chemistry and toxicology, histology, embryology and bacteriology.

The resolution was adopted.

Report of Committee on Uniformity of Forms.

The committee recommended a uniformity in reciprocal license applications blanks, and that the following require-

ments at least be considered essential: (a) A question which will reveal the past conduct and proposed attitude toward engaging in itinerant practice or objectionable advertising business. (b) A comprehensive physical description sworn to by the applicant and endorsed by those who make affidavits, as to his moral and professional standing; affidavits by applicant to be positive instead of "to the best of his knowledge and belief." Intended residence not necessarily required. (c) A certified copy of license which is used as a basis for reciprocity. (d) A detailed statement of preliminary and medical college education.

The report was adopted.

President's Address.

The president, in his closing address, emphasized the point that the work of the confederation was purely educational, and its resulting standards, qualifications and regulations were merely suggestive and intended as a guide and in the interest of uniformity rather than mandatory on boards who held membership in the confederation. The boards, however, were naturally expected to live up to the ideals of the confederation in as far as their laws and local conditions permitted. He acknowledged the indebtedness of the confederation to the very valuable assistance rendered by the Ohio State Medical Board, the Faculty of the Ohio State Medical University, and the visiting deans of other medical colleges throughout the country in contributing to the success of the meeting by their presence and advice. He also especially referred to the great assistance rendered the confederation by Prof. Charles F. Wheelock, representing the New York Board of Regents, and Dr. Fred C. Zapffe, Secretary Association American Medical Colleges.

Officers Elected.

The present officers were re-elected for the ensuing year: President, Dr. W. A. Spurgeon, Muncie, Ind.; secretary, Dr. B. D. Harison, Detroit.

MEDICAL ASSOCIATION OF GEORGIA.

Fifty-seventh Annual Meeting, held at Augusta, April 18-20, 1906.

The President, DR. W. Z. HOLLIDAY, Augusta, in the Chair.

(*Continued from Page 1292.*)

Is There a Continued Fever Other than Malarial or Typhoid?

DR. J. W. PALMER, Ailey, said that from a clinical standpoint he believes all questionable cases of continued fever are a variety of mild, uncomplicated cases of typhoid fever, except occasionally they may be malarial.

The General Practitioner as a Factor in Surgery.

DR. R. R. KIME, Atlanta, said the physician bears a threefold relation to surgery. The first, and most important, is the prevention of the necessity for surgery. Second, the physician may be a causative factor in developing directly or indirectly conditions that require operative procedures. Third, the physician is often called on to use his judgment and advise his patient either for or against operative procedures. To secure the best results and place surgery and medicine on a higher scientific basis, the work of the physician and surgeon should be more closely associated and combined with that of the anatomist, the physiologist and the pathologist.

Suprarenal Tuberculosis.

DR. WILLIAM CLIFTON LYLE, Augusta, reported a case of Addison's disease which came to postmortem. The special points were the freedom of the sclerotics and roots of the nails from pigment; the dark lines at the juncture of the skin and mucous membrane of the lips and in the creases of the palms. The hemophilia, acetonuria, the atrophy of the suprarenals, uncommon in persons of that age (55), and the decided improvement consequent to the administration of suprarenal substance. In this disease, even when marked improvement takes place, the patient's life, owing to the abolished function of the suprarenal glands, is extremely precarious, and all patients who have greatly improved or apparently recovered, should lead inactive lives. They should be warned that they are not cured; that the morbid conditions are still present, and that any overexertion or undue exposure liable to depress the heart may be attended with grave danger.

Intussusception.

DR. MARION M. HULL, Atlanta, believes that early operation is the only rational treatment. High irrigation may be used with advantage to aid in reducing the intussusception.

Appendicitis.

DR. FLOYD W. MCRAE, Atlanta, presented some general observations and statistics up to date regarding this disease. He emphasized the point that appendicitis is first, last and all the time a surgical disease, though not always under all conditions an operative one. Early diagnosis and prompt surgical intervention in all cases will reduce the mortality to less than 2 per cent.

Needed Legislation on Pure Food Laws for Georgia.

DR. O. H. BUFORD, Cartersville, said that it devolves on the medical profession to educate the masses to see the importance of having wholesome food to build strong bodies, so that they may withstand the inroads of disease. The medical profession of the state can wield great power for good if they would realize that they are the watchmen on the towers. The author made an eloquent plea for more stringent laws with regard to pure food.

DR. O. L. HOLMES, Covington, reported a case of vaginal sarcoma in an infant, seven months of age. He presented a study of all similar cases found in the literature.

DR. C. R. ANDREWS, Atlanta, described a method of staining *Spirochæta pallida*.

DR. J. E. SOMMERFIELD, Atlanta, reported a case of typhoid fever followed by an abscess of the liver. On aspiration, pus was found. Recovery followed operation.

(*To be continued.*)

Therapeutics

[It is the aim of this department to aid the general practitioner by giving practical prescriptions and, in brief, methods of treatment for the diseases seen especially in every-day practice. Proper inquiries concerning general formulae and outlines of treatment are answered in these columns.]

Tuberculosis.

In speaking of the dietetic and medicinal treatment of tuberculosis, Bjorkman, in *Merck's Archives*, states that the condition of the stomach and intestinal canal must be carefully watched, even more carefully than the lungs, because if failure of these organs takes place the case will be lost. The patient, consequently, should never eat heartily at any time, nor should liquid foods be taken in too large quantities. Small meals and of the highest caloric value, he states, should be partaken of frequently. The patient should be allowed, as a rule, to choose the articles of food he relishes most, and no food that does not meet with his approval should be served.

Fats in the form of butter and cream are important articles of diet. Cod-liver oil is of value when it agrees with the patient. Whenever fever is present the patient should be put to bed in the open air and should remain at rest as long as the fever continues; at the same time he should be fed to the maximum.

Raw eggs in increasing amounts are recommended, also milk and whisky in small amounts and oft repeated. If the patient can bear wine or beer in small quantities at meal times they are permissible, but should never be given in doses large enough to irritate the stomach.

Excellent results may be expected from change of climate if the case is not too far advanced, and providing that the patient remains long enough at an altitude where he can enjoy pure air and out-of-door life.

In advanced cases Bjorkman condemns any change of climate which would take the patient away from his friends.

Individuals with weak heart, arteriosclerosis, diabetes and emphysema should not be sent to high altitudes, but rather

to a low, dry, sunny climate, where the air is pure and the fluctuations of temperature not great.

In the medicinal treatment, it should be the aim to raise the physiologic activity of the cells as nearly to normal as possible, in this way facilitating the destruction of tubercle bacilli and assisting in eventual cicatrization. While Bjorkman places no specific value in the following medicinal combinations, they are recommended according to the certain requirements and value in correcting digestive, bronchial and nutritive disturbances:

℞. Creosoti ..... m. lxxv 5
Mucil. acaciæ ..... ʒiiss 10
Pulv. althææ rad. q. s.

M. Ft. pil. No. c. Sig.: Two pills after each meal, gradually increasing the dose to five pills after each meal.

The foregoing may be continued for several months. Or:

℞. Creosoti ..... ʒi 4
Tinct. nucis vomicæ ..... ʒii 8
Mucil. acaciæ ..... ʒi 30
Syrupi hypophos. q. s. ad ..... ʒiv 120

M. Sig.: One teaspoonful after each meal.

Guaiacol is recommended as follows:

℞. Guaiacol. carb. ..... gr. iii-viii |20-.50

M. Ft. chart. No. i. Sig.: One such powder morning and night, gradually increasing the amount to 75 grains (5.00) a day. Or:

℞. Guaiacoli ..... gr. xxx 2
Olei amygd. dulcis ..... ʒv 20
Pulv. acaciæ ..... ʒiiss 10
Ft. emulsio et adde
Aquæ dest. q. s. ad ..... Oii 1000

M. Sig.: Eight ounces to be injected by the bowel once daily.

If digestive disturbances arise creosote may be administered by the bowels as follows:

℞. Creosoti ..... ʒss-i 2-4
Olei amygdalæ dulcis ..... ʒiiss 75
Vitelli ovi ..... No. i
Aquæ dest. ..... ʒviss 195

M. Ft. emulsio. Sig.: The entire amount to be introduced into the rectum through a high rectal tube.

As an inhalation the following is recommended:

℞. Iodoformi ..... gr. xv 1
Creosoti ..... m. iv |25
Olei eucalypti ..... m. viii |50
Spts. chloroformi ..... ʒss 2
Spts. vini rect.
Spts. etheris, āā ..... ʒss 15

M. To be used as an inhalation. Or:

℞. Resorcini resublim ..... gr. viii-xvi |50-1
Aquæ dest q. s. ad ..... ʒiv 120

M. Sig.: To be used in a steam inhaler.

In the treatment of the cough the sweet cough syrups and elixirs should be avoided, as they tend to quickly disturb the digestion. For the relief of the cough the following is recommended:

℞. Apomorphinæ hydrochlor ..... gr. ss |03
Acidi hydrochlor. dil ..... m. viii |50
Aquæ dest. ..... ʒiv 120
Syr. althææ ..... ʒi 30

M. Sig.: One tablespoonful every two hours.

In extreme cases in which other agencies have failed the following combination is recommended:

℞. Ext. hyoscyami ..... gr. iv |25
Morphinæ hydrochlor. ..... gr. iss |09
Aquæ amygdalæ amari ..... ʒss 15

M. Sig.: From twelve to fifteen drops in water several times a day.

In the treatment of diarrhea the following combinations are recommended:

℞. Pulv. plumbi acetatis
Pulv. althææ rad., āā ..... gr. lxxv 75
Syrupi simplicis q. s. ad massam

M. Ft. pil No. l. Sig.: One pill four or five times a day. Or:

℞. Pulv. opii ..... gr. ss |03
Acidi tannici ..... gr. i |06
Sacchari lactis ..... gr. viii |50

M. Ft. chart. No. x. Sig.: One powder three times a day.

Acute Conjunctivitis.

In conjunctivitis the following outline of treatment is recommended by the *Med. News:*

As an antiseptic lotion the following:

℞. Hydrargyri cyanidi ..... gr. ii |125
Aquæ ..... Oi 500

M. Sig.: To be used as an eye lotion, alternating with the following combination:

℞. Zinci sulphatis ..... gr. v |30
Aquæ ..... ʒiiss 10

M. Sig.: To be instilled into the eye once daily.

When the conjunctivitis is purulent and due to the gonococcus a solution of silver nitrate should be employed locally:

℞. Argenti nitratis ..... gr. v |30
Aquæ ..... ʒiiss 10

M. Ft. lotio. Sig.: To be applied locally to the conjunctivæ, and followed immediately by a saline solution as follows:

℞. Natrii chloridi ..... gr. xxx 2
Aquæ ..... ʒiiss 10

M. Sig.: Apply locally to the conjunctivæ to counteract the effect of the silver nitrate solution.

In keratitis the same outline of treatment may be carried out as in conjunctivitis and the following ointment inserted into the eye as an antiseptic:

℞. Iodoformi ..... gr. v-x |30-.65
Lanolini ..... ʒiiss 10

M. Ft. unguentum. Sig.: A small piece to be placed on the conjunctivæ and massage given to the eyeball. Or:

℞. Hydrarg. oxidi flavi ..... gr. i-v |06-.30
Lanolini ..... ʒiiss 10

M. Ft. unguentum. Sig.: A small piece to be inserted into the eye once daily, followed by massage of the eyeball.

In cases of iritis in which the condition is acute and the pain intense, it is recommended that from four to six leeches be applied to the temporal region and the following ointment applied locally:

℞. Ext. belladonnæ ..... gr. xv 1
Ung. hydrargyri ..... ʒiiss 10

M. Ft. unguentum. Sig.: Apply locally to the region above the eye.

If the condition is very acute the following is recommended:

℞. Atropinæ sulphatis ..... gr. i |06
Cocainæ hydrochlor. ..... gr. iv |25
Sol. adrenalini (1-1,000) ..... m. xxx 2
Aquæ ..... ʒiiss 10

M. Sig.: One drop into the eye every three hours.

In cases of glaucoma the following is recommended after iridectomy is performed:

℞. Pilocarpinæ hydrochlor. ..... gr. ii |12
Physostigminæ sulphatis ..... gr. 1/5 |012
Solutio adrenalis (1-1,000) ..... ʒi 4
Aquæ ..... ʒi 4

M. Sig.: As an instillation into the eye four or five times daily.

In cases of granular conjunctivitis the following is recommended:

℞. Cupri sulphatis ..... gr. i |06
Acidi salicylici
Cocainæ hydrochlor., āā ..... gr. ii |12
Lanolini ..... ʒiiss 10

M. Sig.: Apply locally to the conjunctivæ at night, and wash it off in the morning with a warm boric acid solution.

Rheumatism.

In the treatment of rheumatism or tonsillitis the following combination is recommended by Dr. E. S. McKee in *Merck's Archives:*

℞. Codeinæ sulph ..... gr. iv |25
Acetanilidi ..... gr. xlv 3
Sodii salicylatis ..... ʒiiss 10
Alcoholis ..... ʒss 15
Syrupi rubi ..... ʒi 30
Glycerini ..... ʒss 15

M. Sig.: One teaspoonful every three hours in water.

The alcohol is used to dissolve the acetanilid, and the raspberry syrup and glycerin aid in rendering the mixture more palatable.

Medicolegal

Members of State Board of Health Can Not Sue.

The Supreme Court of Georgia holds, in Woodward vs. Westmoreland, that the act of that state of 1903 creating the state board of health, not declaring that board to be a corporation and not conferring on the board as such, nor its members, the right to sue, no suit can be brought, in the names of the members of the board, in alleged representative capacity, relating to matters within the jurisdiction of the board. It says that the board is created simply as an agency of the state government, to have supervision and control over all matters relating to the public health. There are always a number of these agencies for the control of certain matters relating to public affairs, and the authority of such agencies, or of the individuals composing the same, to bring suit in behalf of the public, depends upon the terms of the act creating the agencies and defining their limits and powers. If the act creating the board does not declare it to be a corporation, and does not in terms authorize a suit to be brought by it or its members, then suits cannot be brought by the members in their individual capacity.

No Damages for Physical Injury from Mental Anxiety.

The Appellate Court of Indiana, Division No. 1, says, in the case of Kagy vs. Western Union Telegraph Co., that it is now the rule of law in Indiana, in harmony with the weight of authority elsewhere, that damages can not be recovered for mental anguish alone, caused through the negligent failure of a telegraph company to deliver a telegraphic message. But the question presented here was: In a case where the direct effect of the defendant's negligence is mental anxiety and distress, for which alone no damages are recoverable, however real and manifest the mental disturbance be, may there be recovery for physical consequence of such mental hurt? The court, however, is unable to find any reason for allowing a recovery of damages for physical injury resulting from mental anxiety and suffering, occasioned by negligence, which would not require it to hold the defendant to liability where the consequence of such negligence is mental suffering alone. Every serious mental shock or tension has physical sequence of varying severity and duration, which is immediately connected with, and naturally dependent on, the mental disturbance as the cause thereof. If mental injury of such character is so obscure and incapable of satisfactory investigation in a court of justice that it is wise policy not to submit the matter to a jury, the physical depression or irregularity reasonably to be expected therefrom is ordinarily not less difficult of being intelligently apprehended as a matter of damages. Moreover, in this case the alleged consequence was the rupture of an intestine by the plaintiff, who was sick with typhoid fever, and the court follows the statement of that fact with the declaration that even where damages are allowed in such cases, as in some jurisdictions, for mere mental suffering, it is said that they "ought not to be enhanced by evidence of any circumstances which could not reasonably have been anticipated as probable from the notice received by the telegrapher."

Standard for Village Physician.

The Supreme Court of Iowa says, in the malpractice case of Ferrell vs. Ellis, that the defendant was a physician residing in the village of Powersville, Mo. He was called to attend the plaintiff, who lived about three and one-half miles distant, and who had fallen from a ladder and dislocated the radius of his arm at the elbow. Whether it was a forward or a backward dislocation was in dispute. The defendant testified that it was a backward dislocation; that he brought the head of the radius in opposition with the external condyle and dressed the arm extended; that it healed as well as usual in such cases. The arm was examined by other physicians some months afterward, and about seven months after the accident was operated on by a physician of Centerville, assisted by two other physicians. According to their testimony the head of the radius had slipped forward, and after breaking the adhesions they set the arm and dressed it, flexed, or at right angles. The trial court instructed the jury that: "The standard of skill and learning required in any case is that reasonable degree of skill and learning ordinarily exercised by the members of the profession at the time of the treatment in question, having regard to the advanced state of the profession at the time." This, the Supreme Court holds, was erroneous in not limiting the degree of skill and learning to that ordinarily possessed by physicians and surgeons practicing in similar localities. The presumption that prejudice resulted was in no way obviated by the record. No physician other than the defendant, residing at Powersville, testified. Surgeons of more or less experience from Lineville, Corydon, Allerton and Centerville, places varying in population, according to the last federal census, from 690 to more than 5,000 inhabitants, testified; while the village of Powersville was too small to find place in the enumeration. Judicial notice is taken of the population of towns and cities. The Supreme Court has here done so, not to sustain an error, but in order to ascertain if possible, that an error committed might not have been without prejudice. No other debatable question was raised by the record. For the error pointed out a judgment in favor of the plaintiff must be and is reversed.

Current Medical Literature

AMERICAN.

Titles marked with an asterisk (*) are abstracted below.

Medical Record, New York.

April 21.

1 Condition of the Air of the New York Rapid Transit Subway. G. A. Soper, New York.
2 Explosion of a Radium Tube. R. Abbe, New York.
3 *X-Ray Therapy. A. D. Rockwell, New York.
4 Memoranda Anent the Treatment of Gangrene in the Diabetic. H. Stern, New York.
5 *Laryngeal Edema. H. Smith, New York.
6 *The Three-Glass Catheter Test of Urethral and Bladder Detritus in Urethritis. A. L. Wolbarst, New York.

3. **X-Ray Therapy.**—Rockwell reports the history of a number of cases and gives a summary of his results. There is one case of melanotic sarcoma in which 32 exposures were made with no benefit; one case of osteosarcoma with 40 exposures and no benefit; two cases of epithelioma with 45 and 47 exposures respectively, with recovery in both cases; one case of Basedow's disease, with no benefit from 16 exposures; one case of carcinoma of the tongue with 16 exposures but no benefit; one case of carcinoma of the mouth in which 24 exposures were given with no benefit; two cases of carcinoma of the neck, with 24 and 25 exposures respectively, followed by no benefit; on the contrary, both were stimulated to increased activity of growth; one case of alopecia areata subjected to 22 exposures with no benefit; one case of lupus vulgaris, with 45 exposures, terminating in recovery; one case of lupus erythematosus, with 36 exposures, but no benefit; one case of tuberculous glands in which there was decided benefit, but the treatment was abandoned because of sudden and severe dermatitis; one case of scirrus of the breast, treated by 24 post-operative exposures, in which there was no evidence of return after three years; one case of rheumatoid arthritis with 24 exposures but no benefit; one case of nevus with 36 exposures followed by recovery.

5. **Laryngeal Edema.**—Smith's treatment of these cases is as follows: In the acute stage the external measures consist of cold compresses to the throat, and leeches. Internally a brisk purgative, or even emesis, will abstract some of the accumulating serum. Bits of ice, benzoin vapor, adrenalin by spray to the larynx, and 10 drops of the same solution every hour internally are important therapeutic agents. Venesection is also of value in these cases. Scarification or puncture, whenever feasible, is valuable. If all local measures fail, tracheotomy is the one most effective measure. When edema is secondary to a neighboring abscess, evacuation of pus will generally relieve it.

6. **Three-Glass Catheter Test of Urethral and Bladder Detritus.**—Wolbarst advocates the use of the following test: The anterior urethra is washed out carefully until the washings

come out clear into glass No. 1; this shows the condition of the anterior urethra. A soft, sterile catheter of small caliber is now passel into the bladder, and the bladder contents are drawn off into glass No. 2; this shows the bladder urine plus any possible drippings from the posterior urethra, or any possible urethral detritus carried in by the catheter; with the catheter *in situ*, the bladder is washed out thoroughly, until the washings come out clear; this shows that the bladder is empty of all pus or shreds. About eight ounces of clear fluid are now injected into the bladder, and the catheter is withdrawn; the anterior urethra and the bladder have been thoroughly washed out. The patient now passes two ounces of the fluid into glass No. 3; this shows the condition of the posterior urethra. The separate urines from the three parts of the urinary tract have, therefore, been mechanically obtained. If the physician decides to go into further detail he may massage the prostate and have two ounces of fluid passed into glass No. 4; this will show the prostatic condition after massage.

New York Medical Journal.

April 21.

7 Clinical and Microscopic Variations of Chorioepithelioma from a Practical Standpoint. (To be concluded.) R. T. Frank, New York.
8 Renal Calculus; Symptoms and Treatment. E. Eliot, Jr., New York.
9 *Bile Acids as a Remedy. A. C. Croftan, Chicago.
10 *Brow Ague; Frontal Sinus Congestion with Periodic Headaches. F. Woodbury, Philadelphia.
11 Chemistry of Toxemias in Pregnancy. C. G. I. Wolf, New York.
12 Association of Adenoids and Beginning Deafness in Young Children. P. D. Kerrison, New York.
13 Medical Society of Kingdom Come. W. C. Gardner, New York.
14 Case of Melena Neonatorum. B. E. Helprin, Brooklyn.

9. **Bile Acids as a Remedy.**—According to Croftan, bile acids may be employed with propriety chiefly in three conditions that are causally related to each other, namely, intestinal putrefaction, hepatic insufficiency, gallstone disease, and the various syndromes known to be consecutive to these states. Croftan employs glycocholic acid, in the form of the sodium salt, because it is more readily procurable and cheaper than taurocholic acid. The dose varies according to the exigencies of the case. Croftan has been in the habit of giving half-grain doses at frequent intervals until the desired effect is produced. He says that there is never any danger of giving too much because the sodium glycocholate in no way deranges the stomach, and, if given in very large doses, merely occasionally produces a little diarrhea which promptly carries off the surplus. Aside from the clinical results obtained there are three chemical indices that enough is being given: 1, The disappearance of sulphids from the stools; 2, the disappearance or great reduction of the aromatic sulphates (of which indican is the prototype) from the urine, and 3, the appearance of bile acids in the urine.

10. **Brow Ague.**—The practical feature of Woodbury's paper consists in calling attention to the importance of careful local examination in cases of frontal periodic headache instead of simply dismissing them with prescriptions without such examination. In cases of brow ague the discovery of the local tumefaction directly leads to its removal by methods in common use and the prompt relief of the symptoms. Woodbury says that it has happened in cases of frontal headache that after a course of unsuccessful treatment the patient spontaneously expelled some foreign body or living larvæ which caused the local pain and which would have been recognized at the beginning if a proper examination had been made.

Lancet-Clinic, Cincinnati.

April 21.

15 Use of the Obstetrical Forceps. L. S. Colter, Cincinnati.
16 Tuberculosis of the Cervical Lymphatics and Its Treatment. H. C. Sharp, Jeffersonville, Ind.
17 Diagnosis and Treatment of Gallstones. J. G. Albers, Fulda, Ohio.

St. Louis Medical Review.

April 14.

18 X-Ray Burn of the Abdomen. A. D. Mewborn, New York.
19 Lycanthropy (Continued). J. Knott, Dublin, Ireland.
20 *Visit to the Mayos at Rochester, Minn. A. C. Bernays, St. Louis.

20. **Visit to the Mayos.**—Bernays states that a visit to the Mayos at Rochester, Minn., will convince any one that the home treatment of disease, acute or chronic, is unsatisfactory, and that its results are in every way inferior to hospital or institutional treatment. This being granted, the example set by the Mayos will be followed. Hospitals will be built by aggregations of specialists financially backed by capitalists. The money invested will earn legitimate dividends, and the physicians and surgeons, as well as the men conducting the special departments, will be paid. He can thus see the easy solution of many questions that now perplex and retard professional aims and ends. There will be united effort, and the miserable, petty, personal interests will yield to the greater interests and exalted rivalry between fully equipped scientific institutions. The medical profession, as well as the public, will be better served; both will be elevated and benefited by the division of labor among men trained for the special lines of research; and the business management may perhaps be left to a large extent in clerical hands.

Annals of Surgery, Philadelphia.

April.

21 *Value of the Differential Leucocyte Count in Acute Surgical Diseases. C. L. Gibson, New York.
22 Fibrolipoma of Jaw and Neck. L. W. Rose, Rochester, N. Y.
23 *Discission of the Pleura in the Treatment of Chronic Empyema. J. Ransohoff, Cincinnati, Ohio.
24 Movements of the Stomach and Intestines in Some Surgical Conditions. W. B. Cannon and F. T. Murphy, Boston, Mass.
25 Technic of Gastrojejunostomy. W. J. Mayo, Rochester, Minn.
26 *Relative Value of Cecostomy and Appendostomy in the Treatment of Amebic Dysentery by Irrigation and the Colon. H. C. Curl, U. S. N.
27 *Use of Silver Wire for the Cure of Large Herniæ. J. Wiener, Jr., New York.
28 *Primary Tumors of the Urinary Bladder. L. Davis, Boston.
29 Ischemic Muscular Atrophy, Contractures and Paralysis. A. H. Ferguson, Chicago.

21. **Value of Differential Leucocyte Count.**—Gibson claims that the differential blood count and its relation to the total leucocytosis is to-day the most valuable diagnostic and prognostic aid in acute surgical diseases that is furnished by any of the methods of blood examination. It is of value chiefly in indicating fairly consistently the existence of suppuration or gangrene, as evidenced by an increase of the polynuclear cells disproportionately high as compared to the total leucocytosis. The greater the disproportion the more sure are the findings, and in extreme disproportions the method has proved itself practically infallible. As the relative disproportion between the leucocytosis and the percentage of polynuclear cells is of so much more value than the findings based on a leucocyte count alone, this latter method should be abandoned in favor of the newer and more reliable procedure. The negative findings showing no relative increase or even an actual decrease of the proportion of the polynuclear cells while of less value, shows with rare exceptions the absence of the severer forms of inflammation. In its practical applications the method is of more frequent value in the interpretation of the severity of the lesions of appendicitis and their sequel. In order to have some standard to measure disproportion of the polynuclear percentage, it is suggested that a trial be made of a chart which is tentatively recommended under the arbitrary designation of standard.

23. **Discission of Pleura in Chronic Empyema.**—Ransohoff urges that every operation on the thorax for pleuritic effusions of any kind should be done with the patient on his back or slightly resting on the sound side. An incision should be made above the fistulous opening and a piece of one or two ribs removed in order that the cavity may be subjected to inspection and to touch. According to the size of the cavity thus determined, multiple subperiosteal rib resections are to be made either through a number of parallel incisions, through the U-shaped Schede incision, or through a trapdoor incision, a method favored by the French surgeons. It matters little which of these methods be practiced, provided that the resections be ample and that the thickened parietal pleura be excised. Attention should then be given to the diaphragm and to the pulomnary pleura. If the thickened pleura can be removed easily by decortication, it is, perhaps, preferable. If ample expansion of the lung does not ensue an incision in the groove of reflection of the costal and pulmonary pleura must

be made. The condition of the patient should be carefully watched lest too much be done at one sitting. When the cavities are large, repeated operations are necessary for the safety of the patient.

26. **Cecostomy and Appendostomy in Amebic Dysentery.**—In intermediate cases in which treatment is not controlling the dysentery, but in which the patients still have a reasonable amount of strength, Curl claims that the operation of cecostomy, with irrigation of the colon with quinin solution, is indicated. Cecostomy is preferred to appendostomy because of less sloughing and an easier closure of the fistula. The appendix should be removed at the time of fastening the cecum in the abdominal wound. A rapid improvement usually follows the beginning of irrigation, but convalescence is slow, and at times difficulty is experienced in closing the fistula. The after-treatment,—irrigation, etc.,—is tedious, and the patients are offensive cases to have in a ward. And in all, it is the lesser of two evils, it saves lives in selected cases.

27. **Silver Wire for Cure of Large Hernia.**—Wiener believes that it can be safely said that if the silver-wire filigree be correctly made and correctly introduced according to the method devised by Bartlett, it will seldom be necessary subsequently to remove it. If, furthermore, the precaution be taken of introducing two separate filigrees in different planes, then the large majority of otherwise inoperable herniæ will be cured radically. He says that with careful attention to a few technical details we have in the use of the filigree a rapid, safe, and efficient method of curing large herniæ, and one that deserves, in properly-selected cases, the hearty approval of every surgeon.

28. **Primary Tumors of Urinary Bladder.**—From a clinical and histological study of 41 cases of tumor of the bladder, Davis draws the following conclusions: 1. Stone in the bladder is not an etiologic factor of importance in the causation of these tumors. 2. The condition of the underlying bladder-wall in regard to epithelial infiltration, is the more satisfactory and reliable guide in the determination of the benign or malignant character of papillary epithelial tumors of the bladder. 3. If the foregoing condition is accepted as the differential test of these growths then will the benign forms commonly called papillomata, be found to at least equal if not outnumber the malignant, the papillary carcinomata. 4. Recurrent epithelial tumors are not necessarily malignant. 5. Papillary tumors of the bladder, proved to be histologically benign, may rapidly lead to a fatal result if left alone. 6. Surgical intervention at the proper time in the case of pedunculated papillary tumors of the bladder offers a very fair chance of long immunity, if not of permanent cure. 7. The method of surgical intervention to be preferred in these cases, is excision of the tumor in toto, with a margin of bladder wall at its base, including mucosa, sub-mucosa, and muscularis in part; the section need not penetrate the entire thickness of the wall. In this way, a beginning epithelial infiltration of the base, if present, may be circumvented; or if it is not present, the knowledge of the fact is of general value in the important matters of diagnosis and prognosis. The defect in the bladder wall should be closed with sutures, which will at the same time control hemorrhage. The gravity of the operation is not appreciably increased by this procedure.

The Journal of Nervous and Mental Disease, New York.
April.

30 *Care of the Insane and the Study of Psychiatry in Germany. S. Paton.
31 Dispensary Work in Nervous and Mental Diseases. S. E. Jelliffe, New York.
32 *Tuberculous Meningitis. J. N. Hall and S. D. Hopkins, Denver, Colo.
33 *Leprosy Simulating Syringomyelia. H. C. Moffitt, San Francisco.
34 Types in Mental Diseases. W. A. White, Washington.
35 Importance of the Early Diagnosis of Mental Diseases. G. Stockton, Columbus, Ohio.

30. **Study of Psychiatry in Germany.**—Paton says that although the German methods of organization may occasionally reflect the disadvantages of constitutional monarchy, the American methods may, if eternal vigilance is not exercised, assume the form of absolutism. If common-sense business methods, a sense of patriotism and a true feeling of democracy are guiding principles of those whose duties it shall be to organize the first university psychiatrical clinic in America, the future of psychiatry will be bright. To one who seriously considers the national importance of these clinics, there can be little doubt that state authorities as well as private benefactors will soon make it possible to establish in the United States, under university control, a number of institutions whose purposes may be briefly summarized as follows: 1. The cure of many patients who now become hopelessly insane. 2. The instruction of medical students as well as practicing physicians in psychiatry, so that eventually there may be found in the community a greater number of men who are competent to advise whether an individual is capable of standing the mental strain imposed by special forms of education or is liable to endure the nervous strain of the enviroment in which the individual lives. 3. The possibility of keeping under observation a large number of individuals whose nervous system may, if occasion presents itself, become sources of danger to the individuals themselves or to the community. 4. The examination of cases in which the question of mental responsibility is under debate and a submission to courts of formal reports based on observation to supersede the hypothetical expert evidence that so frequently is a parody of justice. 5. The study of all problems whose ultimate solution will tend to a more comprehensive understanding of the functions of the brain, with a view to determining the most efficient methods of increasing the number of individuals in the nation who are capable of rational thought and action.

32. **Tuberculosis and Meningitis.**—Hall and Hopkins report fifty-two cases, forty of which occurred in male subjects. Twenty-nine of the cases occurred after twenty years of age; only fourteen were in the first decade of life; nine of these were in children under the school age. In eleven cases there was a history of at least one death in the family from tuberculosis. In three instances two of the family had died of tuberculosis, in two instances three, and in one instance six. There was a positive history of preceding tuberculosis in twenty-five cases. Abdominal tuberculosis was also present in one of the cases. One of the children who died had had a tuberculous nurse during the previous summer. In another child, a tuberculous meningitis followed shortly after a severe attack of whooping-cough. The duration of the disease was ten days or less in about half the cases, while but twelve cases lasted over fifteen days. Cheyne-Stokes respiration was noted in 14 cases. Unconsciousness was noted in forty-four of the cases, and in one it is said to have been absent until death approached. The pupils were noted as unequal and responding to light in nine cases. Optic neuritis was noted in the majority of the cases. Divergence of the eyes was noted in eight cases, convergence in two, divergence to the right in three cases, to the left in one case. In one case each blindness, hippus and ptosis are noted. Rigidity of the neck was noticed in 24 cases. Muscular twitching was noted in the right arm twice, both arms three times, left leg once, all over three times, and general convulsions occurred in three cases. The reflexes were noted as increased in fourteen cases, as decreased in five, and absent in fourteen cases. The superficial reflexes were absent in seventeen cases, slight in one case, and increased in but a single case. The Babinski reflex was noted on the left side only once, on both sides once. Kernig's sign was frequently present, but the authors have no exact statistics on it. Paralysis was absent in six cases. Among the complications noted were the following: Erysipelas, tuberculous peritonitis, erythema of great extent, alcoholism, melancholia, myelitis, acute pneumonia, phlebitis, uremia, acute bedsores, ulcer of edge of cornea with inflamed conjunctiva and enlarged glands in neck.

33. **Leprosy Simulating Syringomyelia.**—Moffitt reports the case of a boy, 11 years of age, who presented symptoms pointing strongly toward syringomyelia, except for the following: 1, The absence of sympathetic eye signs in presence of the involvement of the small muscles of the hand supplied by the first dorsal segment; 2, the absence of scoliosis; 3, the absence of rigidity and of increased reflexes, especially the absence of these signs in the lower extremities; 4, the distribution of the palsies—left hand and right foot, and the limitation of palsies

and atrophies to the distal parts of the extremities; 5, the absence of ataxia and sphincter involvement; 6, the loss of temperature sense in the left ear, and the limitation of sensory changes in the right arm to the areas supplied by the ulnar nerve; 7, the absence of the Babinski sign and the abolition of the plantar reflex; 8, the widespread involvement of sensation in the lower extremities; 9, the thickening of the peripheral nerves.

Buffalo Medical Journal.

April.

36 Some Minor Rectal Lesions. D. H. Murray, Syracuse, N. Y.
37 *Posterior Gastroenterostomy; An Unusual Postoperative Complication. J. Burke, Buffalo, N. Y.
38 Operation for Strangulated Femoral Hernia. F. H. Flaherty, Syracuse.
39 *Constipation in Childhood. E. S. McKee, Cincinnati.

37. **Gastronenterostomy.**—The patient whose case is reported by Burke was operated on for an acute perforation of a gastric ulcer. A posterior gastroenterostomy by Connell suture with button enteroenterostomy was made, and the abdominal wound closed. After four months of absolute relief from gastric disturbance symptoms which indicated a return of the original trouble appeared suddenly, beginning with vomiting. The vomiting became so persistent that even liquids were rejected as soon as taken. A second operation was done and it revealed the following condition: The union of bowel and stomach as well as the enteroenterostomy was perfect. At a point half an inch away from the stomach, coming from the transverse mesocolon, was a tough band of adhesion one-eighth inch wide attached to and constricting the efferent jejunal loop; the gastrointestinal anastomosis opening would hardly admit the tip of the little finger; evidently the partial obstruction of the circulation of intestinal contents from the stomach to and through the efferent bowel put the new opening proportionately out of function, in consequence of which corresponding contraction took place. The anterior line of gastrointestinal union was incised, some encapsulated celluloid was removed, the interior of the stomach and bowel being exposed. The opening was made larger and the anastomosis completed as usual. One year after the second operation the patient reports perfect health.

39. **Constipation in Childhood.**—The treatment employed by McKee consists of the usual remedies used for the relief of this condition and massage of the abdomen from eight to ten minutes, morning and evening. This massage should be a circular motion commencing in the lower right quadrant of the abdomen and extending up, across and down the abdomen, following the course of the colon.

The Journal of Infectious Diseases, Chicago.

April 6.

40 Significance of Streptococci in Milk. P. G. Heinemann, Chicago.
41 *Method of Isolating the Pneumococcus in Mixed Cultures, Such as Throat Cultures. G. F. Ruediger, Chicago.
42 Common Mosquitoes of Bihe and Bailundo Districts, Portuguese West Africa. (Concluded.) F. C. Wellman.
43 *Toxins and Antitoxins of Poisonous Mushrooms (*Amanita Phalloides*). W. W. Ford, Baltimore.
44 Auxilysins. W. H. Manwaring.
45 New Species of Trypanosome Occurring in the Mouse Mus Muculus. A. I. Kendall.

41. **Method of Isolating the Pneumococcus.**—With the object of making the isolation of pneumococci easier, Ruediger has prepared a blue litmus inulin-agar medium, in which pneumococci form red colonies. This medium is simply a sugar-free agar, with the addition of inulin and litmus, and is made as fololws:

(a) Peptone (Witte)	10
Agar-agar	15
Sugar-free beef broth (neutral)	1,000

Ruediger's directions are to dissolve the mixture by boiling one hour, adding water from time to time to make up the loss from evaporation. Heat in the autoclav for from 15 to 20 minutes (to prevent subsequent precipitation while sterilizing), clarify with egg, filter through cotton, and make the volume up to 800 c.c. with distilled water. (b) Dissolve 15 grams of pure inulin in 200 c.c. of distilled water, mix this solution with (a), add 20 c.c. of a 5 per cent. solution of litmus, put in tubes, and sterilize in the autoclav under 10 pounds' pressure for 15 minutes. Each tube should contain 7 or 8 c.c. of medium. Some pneumococci do not grow well in this medium, hence it is necessary to add 1 c.c. of heated (65 C.) ascites fluid to each tube of melted agar (which has been cooled to 45 C.) immediately before using. In this mixture the pneumococci grow very well, and in from 24 to 96 hours the inulin fermenters form red colonies (acid production), which stand out very prominently on the blue background. The surface colonies do not produce so much acid as the deep colonies, and it is for this reason that each tube should contain a rather large amount of medium. In this way a thick plate is formed, with relatively few surface colonies.

43.—See editorial in THE JOURNAL, April 21, 1906, page 1209.

The Journal of the Michigan State Medical Society, Detroit.

April.

46 *Sporadic Cretinism. H. H. Sanderson, Windsor, Canada.
47 Why Not Be Frank with the Public? E. H. Flynn, Marquette.
48 Operative Treatment of Recent Closed Fractures. C. S. Oakman, Detroit.
49 *Treatment of Chronic Constipation Without Cathartics. L. J Hirschman, Detroit.
50 Health Officers, Their Duties and Responsibilities in Contagious Diseases. F. W. Shumway, Lansing.

46. **Sporadic Cretinism.**—The three cases reported by Sanderson occurred in three sisters, aged 21, 11 and 8 years respectively. The father was perfectly well and gave no history of goiter or any hereditary disease. The mother gave a history of having had a thick neck when young, and also an abscess in the neck. All the patients presented the characteristic signs of cretinism. They were treated with thyroid extract, 5 grains, three times daily, with very satisfactory results.

49. **Treatment of Chronic Constipation.**—The treatment outlined by Hirschman consists in strict observance of all hygienic measures tending toward improving the tone of the intestinal muscle, of the abolition of dietetic errors and of internal massage and dilation of the sphincter, the latter a method which has been attended by uniform success. It consists in the introduction into the rectum and sigmoid of sausage-shaped pneumatic dilators. These are dilated to conform to the shape of the rectum or sigmoid by means of low compressed air pressure. This dilatation is carried to a point where the patient feels a fullness and the dilator is alternately inflated and deflated and manipulated so that the mucous lining of the bowel is stimulated and the circular muscular fibers contract and gradually regain their tone. Cases of chronic constipation of years' standing have been successfully treated and cured in from one week to two months' treatment, the most obstinate case not requiring over 25 treatments to establish a perfect cure. Normal defecation usually follows within a few hours after the first treatment. These pneumatic dilators the author has made from a rubber bag shaped like a condom and they are mounted on a Wales bougie, sizes 5 to 7. These are attached by means of a cutoff valve to the compressed-air apparatus, at a low pressure, and are slowly expanded and allowed to empty themselves. These treatments do not last over five minutes at a time and are followed by good expulsive efforts.

Denver Medical Times.

April.

51 Acute Coryza. D. S. Neuman, Denver.
52 *Treatment of Acute Coryza. T. E. Carmody, Denver.
53 Prevention and Treatment of Coryza. W. C. Bane, Denver.
54 *Coryza (Acute Rhinitis, Cold in the Head, the Snuffles). F. E. Waxham, Denver.
55 Prevention and Treatment of Simple Acute Coryza. J. M. Foster, Denver.
56 Treatment and Prevention of Acute Coryza. J. H. Allen, Denver.
57 Early Diagnosis of Tuberculosis. G. R. Pogue, Denver.
58 Laboratory Diagnosis for the Practitioner. J. C. Todd, Denver.
59 Vomiting. D. S. Neuman, Denver.

52. **Treatment of Acute Coryza.**—Carmody outlines his treatment of all forms of acute coryza, including the preventive treatment. In the early stages he makes use of hot alkaline douches, purgatives, hot footbath, hot lemonade and Dover's powders, and 1 to 10,000 adrenalin solution, the latter to be followed by an oil spray as a protective. In the second stage hot alkaline solutions are used, and if necessary an astringent spray composed of:

℞. Ext. hamamelidis	℥i	30
Ext. hydrastis	3iv	15
Aquæ dest. q. s.	℥ii	60

Internally he uses 1/200 grain of atropin, repeated in from four to six hours, or the following may be used:

℞. Ammonii mur.
Camphoræ, āā.....gr. 1/2 |03
Ext. belladonnæ
Opii pulv., āā.....gr. 1/15 |004

54. Id.—Waxham has found the following combination very effective:

℞. Quininæ salicylatis.....gr. 1½ |10
Acidi arsenious.....gr. 1/120 |00055
Ext. belladonnæ.....gr. 1/20 |003
Capsicum .....gr. ¼ |015

Two of these capsules may be given every hour for three hours, and subsequently one every three hours. Waxham claims that when commenced early this combination acts almost as a specific.

The Postgraduate, New York.
April.

60 Primary Sarcoma of Pleura and Lung in a Young Girl. R. Abrahams, New York.
61 Resection of a Large Portion of the Chest Wall for Sarcoma. F. Torek, New York.
62 Pyelitis Treated by Lavage of the Pelves of the Kidneys. H. D. Furniss, New York.
63 Aortic Insufficiency and Mitral Stenosis. R. Abrahams, New York.
64 Three Cases Showing the Therapeutic Value of Ovarian Extract. L. L. Roos, New York.
65 Case of Tricuspid Stenosis. G. H. Cocks, New York.
66 Mural Thrombus of Left Auricle. Mitral Stenosis. G. H. Cocks, New York.
67 Large Osteoma of Superior Maxilla. F. Torek, New York.
68 Fetus Papyraceus. S. S. Graber, New York.
69 Prolapsus Uteri, S. S. Graber, New York.
70 Acute Dementia, Following the Radical Mastoid Operation. R. J. Held, New York.
71 Management of Postpartum Hemorrhage. J. O. Polak, New York.
72 Successful Treatment of Tuberculosis. A. E. Rogers, Boston.

Canada Lancet, Toronto, Canada.
April.

73 Abdominal Examination. K. C. McIlwraith, Toronto.
74 Epidemic Catarrhal Jaundice. J. L. Addison, St. George, Ont.
75 *Rare Cause of Delay in the First Stage of Labor. A. Fletcher.
76 Bases of Success—The Rectoral Address at the University of Aberdeen. F. Treves.
77 *Value of Vaccination. Drs. Macallum, Sheard, Oldright and others.

75. Rare **Cause of Delay in First Stage of Labor.**—In the first case reported by Fletcher the os was closed over by a band, which was ruptured with the finger, the labor then proceeding normally. The patient admitted having attempted an abortion.

77. **Value of Vaccination.**—In this article are presented the opinions of persons in favor of and against vaccination. Statistics are quoted from various places and in the United States proving the protection and immunity which is conferred by vaccination.

Northwest Medicine, Seattle, Wash.
March.

78 Treatment of Fractures of the Femur. H. E. Allen, Seattle.
79 Infantile Digestive Disorders. G. B. McCulloch, Seattle.
80 First Five Years of Childhood. W. C. Hastings, Seattle.
81 Clean Milk Question—The Control of the Milk Supply in Cities. G. V. Genoway, Spokane.
82 Stable Hygiene. Initial Contamination of Milk. S. B. Nelson, Pullman.
83 Fish Bone in the Appendix. J. B. Eagleson, Seattle.

Medical Sentinel, Portland, Ore.
March.

84 Social Aspects of Dermatology. A. Tilzer, Portland.
85 Malaria and the Kidney. I. B. Bartle, Eugene.
86 Eyes of School Children. A. Blitz, Boise, Idaho.
87 Climate of the Pacific Northwest and Its Influence on Nervons and Mental Diseases. W. House, Portland.

New Orleans Medical and Surgical Journal.
March.

88 Melancholia. E. M. Hummel, Jackson.
89 Blood Smears; A Simple Method of Preparation—Their Diagnostic Value. J. B. Guthrie.
90 Suppurative Otitis Media. J. H. Fridge.
91 Acute Affections of the Pharyngeal Tonsil in Early Life. H. Dupuy.
92 Reflex Neurosis of Nasal Origin. G. King.
93 Retiring President's Address, New Orleans Parish Medical Society. L. G. LeBeuf, New Orleans.
94 Incoming President's Address New Orlean's Parish Medical Society. C. J. Miller, New Orleans.
95 Annual Oration, New Orleans Parish Medical Society. J. Y. Sanders.
96 Probable Syphilitic Disease of the Meninges of the Lumbar Portion of the Spinal Cord. R. M. Van Wart.
97 Cheilitis Glandularis. J. N. Roussel.
98 Circumstances and Conditions of the First Appearance of Yellow Fever in New Orleans and Country Parishes. C. M. Brady.

Vermont Medical Monthly, Burlington.
March 15.

99 Stenosis of the Pylorus in Infants. C. L. Scudder, Boston.
100 Bronchitis and Bronchopneumonia in Children. W. A. Wood, Gallatin.
101 Care of Premature Infants. L. C. Holcombe, Milton, Vt.

Columbus Medical Journal.
March.

102 Jaundice and Its Treatment. W. H. Birchmore, Brooklyn, N. Y.
103 First Two Years of the Medical College Course. C. C. Howard, Columbus.
104 Medical College Curriculum—The Last Two Years. J. C. Oliver, Cincinnati.
105. Id. G. J. Jones, Cleveland.
106 The Hunt Bill. C. R. King, Newark.

Iowa Medical Journal, Des Moines.
March 15.

107 Prostatic Hypertrophy. C. E. Ruth, Keokuk.
108 Treatment of Vernal—Granular—Conjunctivitis. D. H. Lewis, Ottumwa.
109 Cervical Lymphadenitis. C. L. Marston, Mason City.
110 Observations. W. D. Craig, Henderson.
111 Medical Reflections. J. S. Sprague, Stirling, Ontario, Canada.
112 Medical Treatment of Goiter. H. H. Fletcher, Winchester.
113 Medical and Surgical Progress. F. A. Palmer, Des Moines.

Detroit Medical Journal.
March.

114 Scopolamin-Morphin Anesthesia. R. R. Smith, Grand Rapids.
115 Status Lymphaticus; Its Significance in Sudden Death Following Serum Injections and in the Treatment of Diphtheria. A. P. Ohlmacher, Detroit.
116 Strain as a Factor in Cardioaortic Lesions. (Continued). H. B. Anderson, Toronto.
117 Coin in the Esophagus. P. M. Hickey, Detroit.
118 Progress of Surgery. F. B. Tibbals and C. S. Oakman, Detroit.

Illinois Medical Journal, Springfield.
March.

119 Requirements of Scientific Nursing. J. W. Smith, Bloomington.
120 Artificial Hyperemia in Surgery. A. C. Wiener, Chicago.
121 Tuberculosis of the Male Urinary Tract. A. D. Bevan, Chicago.
122 Syphilis of the Male Genitourinary Organs. H. G. Anthony, Chicago.

The Medical Herald, St. Joseph, Mo.
March.

123 Postoperative Hemorrhage in Abdominal Surgery. F. E. Walker, Worthington, Minn.
124 Dermatitis Venenata. W. Frick, Kansas City.
125 Repairing Lacerations After Confinement. A. E. Reeves, Farnam, Neb.
126 Case of Malingering. J. K. P. Bowen, St. Joseph.
127 Poisoning by Rhus Toxicodendron of Rhus Radicans. E. S. McKee, Cincinnati.

Brooklyn Medical Journal.
March.

128 Cystic Degeneration of Chorionic Villi. A. R. Matheson, Brooklyn.
129 Relation of Blood Examination to Surgical Diagnosis. J. E. Jennings, Brooklyn.
130 Hernia of the Bladder, Complicating Inguinal and Femoral Hernia. O. A. Gordon, Brooklyn.
131 Sarcoma of the Kidney in Children. A. H. Bogart, Brooklyn.
132 Spastic Constipation. D. Roberts, Brooklyn.
133 Eversion Forceps. J. W. Ingalls, Brooklyn.

Southern California Practitioner, Los Angeles.
March.

134 Commitment of Patients to Hospitals for the Insane in California. A. P. Williamson, Patton.
135 Treatment of Minor Surgical Injuries. E. H. Wiley, Los Angeles.
136 An Operation for the Painless and Bloodless Removal of Submerged and Adult Tonsils. F. B. Kellogg, Los Angeles.
137 Mouth Breathing in Relation to Mental and Moral Hygiene. R. A. Harris, Los Angeles.
138 San Diego as a Health Resort. T. Magee, San Diego.

Journal of the New Mexico Medical Association, Albuquerque.
March 15.

139 Chorea. G. W. Harrison, Albuquerque.
140 Operative Treatment in Fracture of the Patella. J. B. Cutter, Albuquerque.
141 Climatic Treatment of Pulmonary Tuberculosis. P. M. Steed.
142 History and Physiology of General Anesthesia. F. T. B. Fest, Las Vegas.

The Chicago Medical Recorder.
March 15.

143 Efficiency of Salicylate of Sodium in Inflammatory Eye Diseases. H. Gradle, Chicago.
144 Hemorrhage into the Spinal Meninges. I. A. Abt, Chicago.
145 Involvement of the Eye in Syphilis. E. F. Snydacker, Chicago.
146 Complications in Typhoid Fever. J. H. M. Ohadovec, Chicago.

FOREIGN.

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

British Medical Journal.

April 7.

1 Acute Peritonitis Due to Appendicitis. B. Bramwell.
2 *Surgical Treatment of Gastroptosis. F. Eve.
3 *Complicated Case of Appendicitis. E. S. Stevenson.
4 Importance of the Colon. M. S. Monier-Williams.
5 Large Ovarian Cystoma, with Twisted Pedicle, Complicated by Suppurative Appendicitis. J. T. Hewetson.
6 *Therapeutic Value of Sarsaparilla in Syphilis. C. J. Cullingworth.
7 Tabes Dorsalis. D. Ferrier.

2. **Surgical Treatment of Gastroptosis.**—Eve says that if possible the stomach should be raised into its normal position by means of its natural suspensory ligaments, the gastrophrenic and the gastrohepatic omentum. This is carried out by Beyea's operation, but in three of Eve's cases this procedure was absolutely impracticable on account of the extreme tenuity of the gastrohepatic omentum. The operation performed on these three patients was very similar in each instance, and may be described as follows: A sand bag was placed beneath the back, and the liver raised and held upward as in performing operations on the gall bladder. Five silk sutures were then passed through the lesser curvature of the stomach, ranging from the pylorus to the cardiac orifice, and above they were carried through the attachment of the lesser omentum to the liver, and forward, somewhat deeply, through the liver substance itself, in order to obtain a better hold. When these sutures were tied the lesser curvature was effectually raised and the greater curvature was roughly two inches above the umbilicus. There being a tendency to displacement of the liver downward, a series of interrupted sutures were carried through the anterior surface of the left lobe of the liver, and then through the margins of the costal cartilages.

3. **Complicated Case of Appendicitis.**—Stevenson's patient had had ill-health for several months and was suffering from some vague abdominal pains and from an offensive vaginal discharge. She presented all the classical symptoms of a true appendicitis. Two days later, the symptoms getting worse, she was operated on. Inside the peritoneal cavity coils of small intestines were seen glued together, and a sac was opened containing a good deal of pus; on a higher level another cavity was entered and more offensive pus let out. As the appendix could not be felt, the cecum firmly anchored down, and the patient's condition septic, nothing further was done; the sacs were cleaned with gauze and drained with split tubes. The immediate results were satisfactory. On the fifteenth day the temperature began to rise and the abdomen to swell, but there were no special pains. This condition lasted a fortnight, and the woman was then operated on again. The new incision was made outside the former one so as to enable the surgeon to work from without inward. The cecum was fixed and adherent to the lateral wall and not covered by peritoneum. Carefully dissecting always inward, a grooved cavity was reached, and in it a fecal concretion the size of a hazelnut was found. No appendix could be seen, but low down in the pelvis the end of the appendix was felt adhering to the right tube or to the uterus. From the terminal end to its origin the appendix was pocketed in a mass of adhesions. The appendix was then dissected upward, leaving in some places its peritoneal covering behind. The pocket was cleaned out and the external wound sewn up without drainage. The appendix was large and ruptured in two places—at its end and a little higher up where the adhesion had taken place and where the concretion had escaped. A week after this last operation the patient developed all the symptoms and signs of pneumothorax on the right side. She was again operated on, and following this operation made a complete recovery.

6. **Sarsaparilla in Syphilis.**—Cullingworth reports 10 cases to show the excellent results obtained in the treatment of syphilis with a decoction of sarsaparilla, given three times a day in four-ounce doses. Three pounds of sarsaparilla were placed in two gallons of water. After boiling this down to one gallon the decoction was strained, two gallons of water were added; boiled down to one gallon and strained, two more gallons of water added and again boiled down to one gallon and strained. Two pounds of sugar were then added, and the resulting liquid was used.

The Lancet, London.

April 7.

8 Hepatoptosis, Glenard's Disease and Movcable Kidney. W. W. Cheyne.
9 Tabes Dorsalis. D. Ferrier.
10 *Value of a Serum (Doyen's) in Cases of Malignant Disease. A. Paine and D. J. Morgan.
11 Pathology of Gangrene and Perforation of the Hollow Abdominal Viscera and Acute Perforating Ulcer of the Stomach. D. Drummond and R. Morison.
12 *Results of Operation for Radical Cure of Hernia. J. Hutchinson.
13 *Treatment of Cancer by Therapeutic Inoculations of a Bacterial Vaccine. C. Jacobs and V. Geets.

10. **Doyen's Serum in Malignant Disease.**—Paine and Morgan investigated the value of this serum in nine cases. The injections had no influence on the course of the disease in four cases. In two cases of carcinoma of the breast the injections were followed by severe constitutional disturbances characterized by cardiac failure. In none of the cases was there any improvement. Doyen's *Micrococcus neoformans* was often found present in 44 cases of tumor, in common with other micrococci, but the authors are of the opinion that it is not present in sufficient numbers or with reasonable constancy to be regarded as the etiologic factor in the evolution of these growths. They were unable to produce a neoplasm in animals inoculated with this germ.

12. **Results of Radical Cure of Hernia.**—A careful study of the results obtained by operation for hernia on 500 patients led Hutchison to draw the following conclusions: 1, In all but the simplest cases in children it is best to open up the canal and to narrow it by deep sutures; 2, suturing the conjoined tendon to Poupart's ligament behind the cord by a series of interrupted sutures is probably the best method of narrowing the canal; 3, when the conjoined tendon is deficient, in all recurrent cases, and in inguinal hernia in women the canal should be obliterated; 4, kangaroo tendon is admirably adapted for the suture material, silver wire being probably the worst; 5, recurrence of the hernia *in situ* may possibly take place at any length of time after the operation, but if two years be adopted as the limit it should not occur in more than from 5 to 8 per cent.; and 6, the development of a hernia at another site after operation may be expected in a proportion of cases at least as large as that just given.

13. **Serum Treatment of Cancer.**—In marked contrast to the results obtained by Paine and Morgan are those obtained by Jacobs and Geets. Their researches have convinced them: 1, That we have in cancerous cachexia a specific micro-organism, the *Micrococcus neoformans* of Doyen; 2, that the anti-cancerous sera of Doyen are wholly useless; and 3, that it is practicable to immunize the human organism by means of a series of inoculations of the *Micrococcus neoformans* vaccine, provided that these are properly controlled by examinations of the opsonic power of the blood. In all the patients treated according to their method, the authors noticed real and definite improvement. They succeeded in cultivating the *Micrococcus neoformans* from 90 per cent. of the tumors examined, and succeeded in producing localized or generalized neoplastic lesions in 30 per cent. of the cases by inoculating young and vigorous cultures of the micro-organism into mice and white rats. The reader is referred to the original paper for a complete description of the methods employed by the authors.

Journal of Tropical Medicine, London.

April 2.

14 Hemipterous Insect Which Preys on Blood-Sucking Arthropods and Which Occasionally Attacks Mammals. F. C. Wellman.
15 Horse-flies (Tabanidæ) and Disease. E. E. Austen.
16 Anatomy of the Biting Flies of the Genus Stomoxys and Glossina. (To be continued). G. M. Giles.
17 Hypnotic Susceptibility of the Negro Race. C. W. Branch.

Intercolonial Medical Journal of Australasia, Melbourne.

February 20.

18 *Congenital Heart Malformations. W. H. Summons.
19 Cases of Intestinal Surgery. G. A. Syme.
20 Bullet Wound of Pericardium, Pleura, Stomach, Liver and Spleen—Splenectomy—Recovery. F. D. Bird.
21 Cases of Hemo-Pyo-Pericardium and of Perforated Gastric Ulcer—Operation—Recovery. F. R. Legge.
22 Miner's Disease at Bendigo. W. F. S. Bottomley.

18. **Congenital Heart Malformations.**—The cases observed by Summons are arranged in several groups. 1. In this group cases of patent foramen ovale are included. This group is subdivided into three classes: (a) Those patients which exhibited no cardiac symptoms, and no signs on physical examination, but died in infancy. On autopsy a patent foramen ovale was found. (b) Those which exhibit no symptoms, but on physical examination definite signs may be detected. (c) This class of cases presents well-marked physical signs, and also symptoms of varying intensity. 2. Cases of pulmonary stenosis. 3. Patients with deficient ventricular septum. 4. Aortic stenosis, with patent ductus arteriosus. 5. Patients with a patent ductus arteriosus (a) alone, and (b) associated with another deformity. 6. Cases which present many of the signs of congenital heart malformation, signs and symptoms being present from birth, but in which the postmortem examination indicates that the trouble is a valvulitis, originating, probably, before birth. 7. Patients with some mild heart abnormality, which, after an attack of acute rheumatism, develop a valvulitis or pericarditis, the mixed lesion proving fatal, whereas either lesion alone need not necessarily prove so.

The Dublin Journal of Medical Science.

March.

23 Empyema. W. G. Smith.
24 Surgical Treatment of Empyema. T. Stoker.
25 Bacteriology of Empyema. H. C. Earl.
26 Empyema or Hypophrenic Abscess. J. Moore.
27 Surgical Treatment of Empyema. A. Chance.
28 Treatment of Empyema. W. Taylor.

Bristol Medico-Chirurgical Journal, London.

March.

29 Anti-Tuberculous Vaccines and Sera. J. M. Fortescue-Brickdale.
30 Prognosis of Pulmonary Tuberculosis. J. J. S. Lucas.
31 Why Defective Nasal Respiration Impedes Growth and Development. P. W. Williams.
32 Effects of Fright in Medicine. J. R. Charles.
33 Colitis Polyposa. C. Coombs.
34 Case of Acute Yellow Atrophy of the Liver. F. H. Edgeworth.
35 Acute Yellow Atrophy of the Liver in a Child. B. M. H. Rogers.
36 Splenomegalic Biliary Cirrhosis in a Boy Aged Six Years. E. C. Williams.
37 Epithelioma of Tongue in a Young Woman. C. H. Whiteford.

Presse Médicale, Paris.

38 (XIV, No. 16.) *Cinq ans de sérothérapie antityphoïde (five years). A. Chantemesse.
39 Brulures graves produites par l'explosion d'une chaufferette a l'acétate de baryte (severe burns from explosion of chemical heater). F. de Lapersonne.
40 Des injections alcooliques au niveau des trous de la base du crane dans la névralgie faciale rebelle. F. Ostwalt.
41 (No. 17.) *Bouteilles à poisons (bottles for poisons). Desfosses.
42 De la sénilité. L'artériosclérose. A. Letienne.
43 Complications des fibromes de l'ovaire. O. Guelliot.
44 La méthode de Bier dans les hydarthroses. R. de Gaulejac.
45 (No. 18.) Des colloïdes. Leur importance biologique. H. Iscovesco.
46 *Administration de lait caillé dans le néoplasme stomaco-pancréatique. A. Martinet.

38. **Five Years of Antityphoid Serotherapy.**—Chantemesse gives a table showing the mortality from typhoid fever in the various hospitals of Paris during the last five years, the average being 17.3 per cent. in 3,595 cases. At the hospital known as Bastion 29, there have been 712 typhoid patients, and all have been treated with antityphoid serum, with a mortality of only 3.7 per cent. This treatment has not yet been introduced in the other hospitals. In the 27 fatal cases death was due to perforation in 9, to pneumonia in 3, to gangrene of the mouth in 1, to rupture of an aneurism in 1, to cancer of the kidney in 1, and to gangrenous pleurisy in 1. None of the patients succumbed to hemorrhage. Chantemesse makes a practice of giving calcium chlorid in the severe cases not treated until late. A little calcium chlorid is given as a preventive of hemorrhage about the middle or end of the second week. This is about the only drug used aside from the serum. Perforation occurred in only 9 cases, and in these treatment had not been instituted until late. It was never observed in any patient whose treatment had been commenced during the first week; all the patients treated during the first week recovered without exception. In 2 other patients perforation occurred, but was successfully sutured. This is a total of 11 perforations in 712 cases, or 1.5 per cent. In various statistics cited the proportion was 2.6 per cent. in 8,160 cases. Chantemesse ascribes the action of the serum to its stimulating influence on the lymphoid system. If the disease is advanced and the lymphoid system gravely affected, it is wise to inject only a small amount of the serum.

41. **Bottles for Poisons.**—Several new designs for bottles are illustrated which would attract attention to the fact that they contain poisons. One is of ordinary shape and size, but is thickly studded with spike-like projections. Another has two necks and stoppers. The contents will not flow out of one neck unless the stopper is taken out of the other neck also. A third form of bottle is bullet-shaped, the point upward; the opening and stopper are at the bottom. A fourth form has the neck of the flat bottle at one corner and turned back horizontally. The contents can be poured out only when the bottle is tipped in a certain direction.

46. **Kefir in Cancer of Stomach and Pancreas.**—Martinet describes without comment the case of a man of 55 with an inoperable cancer in the stomach involving the pancreas, causing continuous pain and vomiting. What he calls "Bulgarian clotted milk, prepared with Maia" was given the patient and at once all pain and vomiting ceased. On a Sunday, when the store was closed and it was impossible to obtain the milk, the pains and vomiting reappeared at once, but vanished again when it was resumed. After an exploratory laparotomy the curdled milk was stopped and again the pains and vomiting reappeared. They vanished when the clotted milk was taken again, and the patient was free from these symptoms on this diet until he succumbed to cachexia. He ingested from 500 c.c. to 2 liters a day.

Semaine Médicale, Paris.

47 (XXVI, No. 11.) Ictère chronique et coliques hépatiques symptomatiques de kyste hydatique du lobe de Spiegel. T. Tuffier.
48 *Le diagnostic précoce de la tuberculose pulmonaire par la recherche des points de submatité des sommets (of apices). M. Landolfi (Naples).

48. **Early Diagnosis of Pulmonary Tuberculosis.**—Landolfi has been studying in the clinic, with subsequent postmortem examinations, the points where resonance is impaired in case of an incipient tuberculous process at the apex. He has located six points where percussion is liable to reveal impairment of resonance, and this finding at even one of these points is extremely suspicious. Point 1 is 1 cm. below the clavicle, at the junction of the inner third and outer two-thirds. Point 2 is the same distance above the clavicle on the same vertical line. Point 3 is at the intersection of the acromio-mastoid line with a line uniting point 1 with point 4. The latter point is in the center of a line drawn from the acromion to the spinous process of the second dorsal vertebra, and is the only point on the back. Point 5 is 1 cm. below the center of the clavicle, and point 6 is just inside the acromion and above the acromio-cervical line. They are numbered in the order of their importance. Percussion should be with the middle finger on the nail of the index finger applied horizontally, the patient seated or standing, the arms pendant. The percussion should be light and then heavy, and should be applied at symmetrical points on each side. The less the difference between the results of light and strong percussion at point 6, the greater the probability of a lesion of the apex. He diagnosed one case from this finding alone, and the autopsy confirmed the diagnosis. It is necessary to be skilled in the physiologic findings at these points, but this comparative percussion, combined with light topographic percussion of the apex, will early reveal not only a lesion at the apex, but also the pathologic anatomic condition of the parenchyma of the lung.

Archiv f. Gynäkologie, Berlin.

Last indexed, page 918.

49 (LXXVIII, No. 1.) *Zur operativen Behandlung der puerperalen Peritonitis und Pyämie. G. Leopold.
50 Klinische Würdigung einiger experimenteller Ergebnisse beziehentlich der Physiologie der Uterus-Contraction. E. M. Kurdinowski.
51 Zur Hebotomie auf Grund von 21 Fälle (extramedian symphyseotomy). Kannegiesser (Dresden).
52 Einfluss der Ovarien auf den Stoffwechsel. Menstruation und Stoffwechsel (metabolism). L. Zuntz.

53 *Zur Lehre von den Dermoid-Cysten des Eierstocks (of ovary). J. Schottlaender.
54 *Betrachtungen über Geburten mit übelriechendem Fruchtwasser (births with fetid amniotic fluid). Lehmann (Breslau).
55 *Die Malignität der Blasen-Mole (hydatidiform mole). Schickele.

49. **Operative Treatment of Puerperal Peritonitis and Pyemia.**—Leopold reviews his experience with operative treatment of puerperal peritonitis. He regards it as a promising field on condition that the incisions and drainage tubes are protected so carefully that no possibility of secondary infection is permitted. In 5 cases of acute, generalized peritonitis 3 of the patients recovered. They were all operated on by the second or third day of the peritonitis, while 2 others, not operated on until the fifth day, succumbed, the intervention having come too late. The abdominal cavity was filled with pus or a dirty reddish fluid, the intestines were congested and covered with deposits of fibrin, the lymph spaces in the right wall of the uterus were distended with pus, and streptococci were cultivated from small abscesses in the left corner of the uterus. These findings emphasize the importance of prompt interference, not allowing the proper moment for intervention to pass. This, he thinks, is when high fever, increasing and smaller pulse and increasing distension and tenderness of the abdomen become accompanied by hiccough and vomiting, while the complexion and expression indicate severe infection, and an area of dullness develops and spreads in the hypochondrium on both sides. A laparotomy under such conditions in commencing peritonitis can do only good. It is necessary under all circumstances to open and drain the Douglas pouch into the vagina, and it is also wise to drain the region of the hypochondrium. In Leopold's experience daily rinsing out of the abdominal cavity afterward seemed to be unmistakably beneficial. The 5 patients with circumscribed peritonitis all recovered after an operation performed between the nineteenth and fiftieth days. The search for the focus causing the protracted sickness may prove long and difficult. If the inflamed and possibly suppurating adnexa on one side are included in the circumscribed intraperitoneal pus focus, they must be released from adhesions and removed after ligature. The most complicated conditions can be straightened out by calm, cautious technic. Whether or not to remove the adnexa depends on the individual conditions. In 3 cases he merely opened and drained the focus, an abscess in the uterus. These cases show that several operations may be necessary before the primary focus is discovered. It is generally found in or near the uterus, and the experiences related indicate that even earlier intervention might have been still better. In one of the cases reported and tabulated, abdominal section was undertaken on the twenty-fourth day of the severe illness. After exposing the adherent organs the pus focus was finally found in the uterus, and the circumscribed peritonitis rapidly healed after this focus had been drained.

53. **Dermoid Cysts of the Ovary.**—Schottlaender's article is a histologic study of 4 cases of dermoid cysts in the ovaries. He states that the assumption that dermoid cysts are innocent growths requires some modification. The similarity to endothelioma is too striking.

54. **Childbirths with Fetid Amniotic Fluid.**—Lehmann has encountered 59 cases of this kind in 9,500 childbirths at Breslau. There was temperature in all but 3 cases. Five of the mothers died, and 32 of the children. The walls of the uterus are protected by the membrane against infection from the fetid fluid, and it does no harm to the external parts so long as they are intact. Rinsing with an antiseptic before, during or after the birth did not seem to influence the further course of the cases. Expectant treatment at first, with cautious rinsing out of the vagina after delivery, not allowing the fluid to enter the uterus, he states, seems to be the most promising treatment.

55. **Malignancy of Hydatidiform Mole.**—Schickele discusses whether the uterus should be removed as a matter of course in case of a hydatidiform mole. He thinks that the danger of malignancy should always be borne in mind, and that after removal of the mole the uterus should be curetted and the scrapings examined. If a chorioepithelioma exists outside of the uterus it should be removed and the uterus should be curetted and palpated. If the findings are negative the examination should be repeated in four weeks, or in two if there is the slightest suspicion of positive findings. The presence of a chorioepithelioma outside of the uterus should not influence the decision as to the removal of the uterus unless the findings suggest the probability of malignancy. He replies to the possible objection that the hysterectomy might come too late by saying that this could occur only in cases with very early metastasis, and in such cases the physician is powerless whether there is a neoplasm in the uterus or not.

Deutsche Zeitschrift f. Chirurgie, Leipsic.

Last indexed, page 1148.

56 (LXXXI, No. 1.) *Behandlung der akuten Peritonitis. K. G. Lennander (Upsala).
57 *Results of Slitting the Kidney.—Folgen der Nierenspaltung. H. Wildbolz (Berne).
58 *Die perorale Intubation mit und ohne Druck. III. Apparat zur Lieferung des Druckes für die Ueberdruck-Narkose (over-pressure). F. Kuhn.
59 Deformities of Face.—Gesichtsmissbildungen. L. Kirchmayr.
60 *Displacement of Large Intestine by Distension.—Ueber Lageveränderungen des Dickdarmes bei Aufblähung. Lessing.
61 Ein echtes Cholesteatom der Schädelknochen (of cranial bones). F. Unterberger.

56. **Treatment of Acute Peritonitis.**—Lennander insists on the importance of an early and exact diagnosis and on an early operation, if possible before the intestines become paralyzed. The cause of the acute peritonitis must be sought for and removed in every case. When the intestines are paralyzed three measures should be considered: 1. Enterotomy (single or multiple), emptying the intestine during the operation. 2. An oblique fistula into the intestine. 3. In desperate cases, resection of from 0.5 to 1 or even 2 yards of the paralyzed bowel. In case of peritonitis from appendicitis with paresis in the cecum and adjacent part of the ileum, an oblique fistula must be made in the cecum during the operation, or the wall of the cecum can be sutured to the incision in the abdominal wall so that it will be ready to have an oblique fistula made without the necessity for general anesthesia in case symptoms of paralysis of the intestines develop after the operation. In case of recent suppurative peritonitis in the center of the abdominal cavity (that is, around the mesentery of the small intestine), the most harmless and effectual measure for removing the pus is to rinse with 0.9 per cent. salt solution at a temperature of 40 C. (104 F.), under very slight pressure and with free outlet. He declares that no one is justified in rinsing the sound peritoneal surfaces at the same time. Only when it has been established that the rinsing of sound peritoneal surfaces with a 0.9 per cent. salt solution induces leucocytosis which will protect against the danger of infection, will we be justified in rinsing out the intact parts of the peritoneum; as for example, in case of suppurative peritonitis in the small pelvis, rinsing out the center of the abdominal cavity, or in case of suppurative peritonitis below the transverse colon, allowing the rinsing fluid to find its way above this part of the bowel. Infected and acutely inflamed peritoneal surfaces must be drained. He thinks the best technic for this is to wall off the infected area from the sound regions of the peritoneal cavity. He uses tamponade drainage, with very coarse cotton yarn (wicking) with drain tubes between the strands of yarn and rubber tissue. He tampons only in the peripheral regions of the abdomen, around the stump of the appendix, of the gall bladder, etc., when it is a question of separating a certain part of the serosa from the rest. The best rubber stuff for draining he has found to be long rubber operating gloves that have outlived their usefulness as gloves. Instead of large tubes he prefers a bundle of from four to eight small tubes, not more than from 1 to 1.5 mm. in diameter. He sometimes inserts a pair of these tubes through a glove. Adhesions do not form around the rubber as around gauze. He begins to remove the tubes about the twelfth hour, and the rubber drainage is usually all removed from the thirty-sixth to the seventy-second hour. In the after treatment everything must be done to favor the resumption of normal functions by the stomach and intestines at the earliest possible moment. Lavage of rectum, colon and stomach and enterostomy are good and tried measures. An efficient subcutaneous purgative is greatly needed. Too little is known of the action of strychnin, physos-

tigmin or atropin on the intestines for any definite rules for their use. Lennander has used strychnin for a heart tonic, and imagines that benefit has been derived from physostigmin in doses of from 0.5 to 1 mg. once or twice a day, from fifteen to thirty minutes before lavage of the intestines in case of intestinal paresis, or when the symptoms of intestinal paralysis were commencing to subside. Mechanical measures to empty the intestines and stomach are the most important in combating intestinal paralysis. Typhlostomy is an excellent measure in case of appendicitis peritonitis with commencing intestinal paralysis. It is important, he adds, to supply the water lost in the course of the affection. From 1,200 to 2,000 c.c. of water must be supplied to the adult organism in the course of twenty-four hours. If it can be given through the rectum or through an oblique fistula into the cecum, this is better than by the subcutaneous or intravenous routes. Whether or not larger amounts of water are desirable is a matter for discussion. More can be given if the general appearance and the heart action are improved and the diuresis and peritoneal secretion are increased in direct proportion to the supply of water. If convinced that paresis in the vascular domain of the splanchnic nerve is the most important factor in the trouble, artificial serum must be infused, from 1 to 2.5 quarts, once or twice in the twenty-four hours. Nothing in the way of food except grape sugar, he states, can be given to advantage through the rectum, but large amounts of peptonized nourishment can be administered through a fistula into the cecum. A patient can be fed for a few days by subcutaneous injection of 100 or 200 gm. olive oil, 160 gm. grape sugar and 40 gm. alcohol (2 liters salt solution containing 8 per cent. grape sugar and 2 per cent. alcohol). In all cases of suppurative peritonitis the after treatment should always reckon with adhesions and kinking of the intestine at sharp angles. It is important not to allow food by the mouth too soon. If food hard to digest or too large quantities of fluids are allowed, the intestines are not able to force them along past all these obstacles. Easily digested food, and drinks in small amounts at a time, the intestine is able to handle, and the adhesions, he declares, will become gradually detached in time. After every operation for acute peritonitis the patient must be impressed with the necessity for regular evacuation of the bowels and avoidance of indigestible articles of food. This article by Lennander was read to introduce the subject of acute peritonitis at the recent International Surgical Congress.

57. **Results of Slitting the Kidney.**—Wildbolz reports experiments with 9 rabbits and 5 large dogs. In every instance when one of the large arteries in the kidney was severed, an infarct formed at the spot.

58. **Intubation Through Mouth for Anesthesia and for Over-Pressure in Lungs.**—Kuhn gives an illustrated description of his apparatus for "peroral" intubation, that is, intubation with the tube extending out through the mouth. He has adapted it to induce over-pressure in the lungs to allow operations in the thorax.

60. **Displacement of Large Intestine in Case of Distension.**—Lessing remarks that the topography of the intestines has been based on the findings with the normal or relaxed intestines of the cadaver. He has been studying on 50 cadavers the positions assumed by the large intestine when inflated.

Muenchener medizinische Wochenschrift.

62 (LIII, No. 8.) *Importance of Anesthesia in Treatment of Inflammation.—Die Bedeutung der Anästhesie in der Entzündungs-Therapie. G. Spiess.
63 *Zur Technik der Knieschelbennaht (suture of patella). A. Schäfer.
64 Ueber die Roentgen-Untersuchungen der Trachea bei Tumoren und Exsudat im Thorax. C. Pfeiffer.
65 Zur Radikal-Operation des Schenkelbruchs (femoral hernia). F. Berndt.
66 Traumatische Pupillenstarre. Beitrag zur Lehre von den Beziehungen des obersten Halsmarkes zur reflektorischen Pupillenstarre. (Immovable pupils a spinal phenomenon. One case). G. Dreyfus.
67 Eine neue Methode der Romanowsky-Färbung (stain). R. May.
68 Ueber neue Haarfärbemittel (hair dyes). E. Tomasczewski and E. Erdmann.
69 Case of Persisting Abducent Paralysis After Stovain Lumbar Anesthesia.—Fall von Abducens-Lähmung nach Lumbal-Anästhesierung. C. Adam (Berlin).
70 Progressive Paralyse. G. Knauer.
71 *Orthopädie des Bauches (of abdomen). G. Bracco.
72 Photoaktivität der Gewebe als Faktor der biologischen Strahlenwirkung (action of rays). Neupauer. Id. Werner.

62. **Importance of Anesthesia in Treatment of Inflammation.**—Spiess is convinced that inflammations are favorably influenced when the pain is reduced by artificially induced anesthesia. He believes that it is possible to prevent inflammation by preventing the development of painfulness in a wound. By the use of local anesthetics, he states, it is possible to abolish the pain, and wounds heal without inflammation, or if there is already inflammation, it rapidly subsides. By abolishing the reflexes emanating from the focus of inflammation through the centripetal sensory nerves it is possible to prevent the development of inflammation or to cure it if already existent. The anesthetization should affect only the sensory nerves, and should not disturb the normal play of the vasomotor nerves. As irritation of sensory nerves induces hyperemia by reflex action, so suppression of such irritation (by local anesthesia) prevents the development of the hyperemia or abolishes it if already present. He gives a number of experiences and arguments to sustain this view, suggesting that the beneficial action of passive congestion may be due to its anesthetizing properties. All writers on the subject mention the prompt relief from pain as its most constant feature. In treatment of inflammation the focus must be kept thoroughly and permanently under the influence of the local anesthetic which must come into intimate contact with the focus throughout its extent. Repeated insufflation of a local anesthetic, every five minutes, will abort incipient sore throat or coryza, and by injection will abort furuncles and styes. The criterion is the subjective relief from all disagreeable sensation from the focus. When this is accomplished and kept up the inflammation rapidly subsides.

63. **Suture of the Patella.**—Witzel has been using for years a method of suturing the patella without the necessity for opening up the joint, and it has proved extremely satisfactory in his hands. He uses stout silver wire and two slightly curved trocars. He passes one trocar through the tendon of the quadriceps, just above the patella, and the second trocar through the ligamentum patellæ, just below the patella. The concave curve of the trocars is turned toward the patella, and the needles are removed. A piece of wire is then passed through each trocar, the ends being tied together with considrable traction in the center over a tampon, the ends of the wire forming an X over the fractured patella, which is thus held immovably in place. A plaster cast is then applied and massage of the muscles commenced the second week; the cast is removed once daily for the purpose. Passive and then active movements are commenced at the beginning of the third week; the wires and trocars are not removed until the fourth or fifth week has passed. The same technic has been successfully applied in treatment of fracture of the olecranon. Schäfer states in conclusion that the simplicity and the excellence of the results have fully established the superiority of the method.

71. **Orthopedics of the Abdomen.**—Bracco gives illustrations of a model supporting bandage for the abdomen. A bandage wound around the abdomen, passing from the center of the abdomen around the thigh, forms a figure 8 on each side, which bring the pressure and support on suitable regions. The bandage is made of ten or more narrow bands, each wound separately, with narrow spaces between them and cross bands to hold them in place. The whole opens in front and can be easily removed and put on. The general aspect is like a pair of bathing trunks. He claims that its use cured cases of obstinate constipation, of albuminuria of many years' standing, and other effects of ptosis, and that in cases of threatening eventration it has enabled the tissues to regain firmness and strength. He has found it very useful also during and after pregnancy; the energy otherwise devoted to holding up the weight of the pregnant uterus could be diverted to other purposes.

Virchow's Archiv, Berlin.

Last indexed, page 1324.

73 (CLXXXIII, No. 3.) *Beitrag zur Mikro-Photographie mit ultravioletten Lichte nach Köhler. H. v. Schrötter (Vienna).

74 *Experimentelle Untersuchungen über den Verbrennungstod (fatal burns).
C. Eijkman and C. E. A. van Hoogenhuyze (Utrecht).
75 Ueber Allgemein-Infektion durch den Bacillus pyocyaneus (general infection). E. Fraenkel (Hamburg).
76 Ueber Zerreissungen und traumatische Aneurysmen der Aorta. O. Busse.
77 Zur Frage des elastischen Gewebes im normalen und myopischen Auge (elastic tissue in eye). S. Fuss (Halle).
78 Zur Histologie des Callus. T. Gümbel.
79 Eine Mischgeschwulst (Osteoidsarkom) der weiblichen Milchdrüse (of mamma). C. Hueter and Karrenstein.

73. **Microphotography with Ultra-Violet Light.**—The method of microphotography with ultra-violet light proposed by A. Köhler of Jena is regarded by von Schrötter as a great advance in progress, on a par with the ultra-microscope of Siedentopf and Zsigmondy. It opens a new field for investigation. The process differs from ordinary microscopic technic only in the fact that it is not possible to observe directly with the eye. The eye is substituted by the sensitized plate on which the invisible rays act. He uses magnesium or cadmium one-colored light with a wave length of 280 or 275, a numerical aperture of 1.25, and exposure of about a second. An artificial eye or finder, on which the invisible rays cause fluorescence, enables the image to be centered. Nineteen views are given by von Schrötter of bacteria and tissues of various kinds photographed with this technic, which brings out the details as clearly as if they had been stained by the best technic. Until the technic is further perfected the results of ultra-violet photography are not superior to those of staining so far as bacteria and trypanosomes are concerned, but examination of blood from malarial and leukemic patients revealed details hitherto unsuspected, which establish the great value of this new mode of investigation. With it, von Schrötter says, we can inspect the finest structural elements down to 0.25 micron. It also enables us to study the permeability of various tissues and their elements for the ultra-violet light, and, in combination with the findings of the spectrograph (Freund, Hertel and others), to learn new optical characteristics in regard to them. The behavior of structures in regard to their permeability for the short wave rays after having been stained or acted on by chemical agents, is also a promising field for research. Each simple tissue element should be studied separately before we can appreciate the findings in pathologic tissues. The action of autolytic processes and the influence of ferments can also be traced with the ultra-violet photography. Ordinary staining methods fail to help us in this. New details of histopathology will be revealed by the new technic, and possibly the causal agents of certain infectious diseases, as of scarlet fever, may be run to earth with its aid. Another advantage of this new technic is its use as a control for our previous technical procedures. It is a fortunate coincidence that ultra-violet photography allows the use of physiologic salt solution as a vehicle for the objects, and in this vehicle living elements can be photographed and vital processes can thus be studied. The dynamogenic action of electricity and the resulting changes in tissues can perhaps be studied with the ultra-violet rays. Especially important in this line would be the examination of the nervous systems of animals after these had been killed by electricity. Another interesting line of research would be the photographic reproduction of the processes involved in hemolysis and agglutination, and in the action of normal and antitoxic sera on bacteria and on the cell protoplasm from a morphologic point of view. Köhler's original article was published in the *Zeitschrift f. wissenschaftliche Mikroskopie und mikrophotographische Technik*, XXI, pp. 129 and 273, 1904, but the apparatus is fully described in the Zeiss catalogues. Grawitz and Grüneberg have just published a work on the blood studied by ultra-violet light, which contains also some views of leukemic blood.

74. **Death from Extensive Burns.**—The conclusions of the experimental research reported are to the effect that death from extensive burns may be due to paralysis of the heart, the result of the overheating of the blood. Likewise to the formation of substances in the skin under the influence of the heat, which, when taken into the blood, have a fatal toxic action. Burning of muscle tissue does not cause the formation of such toxic substances as in the skin. A deep burn of limited extent is borne much better than a shallower burn over a larger area.

Zeitschrift für Geb. und Gynäkologie, Stuttgart.

Last indexed, page 693.

80 (LVII, No. 1.) Zur Lehre vom Scheintod der Neonatorum (apparent death). B. S. Schultze.
81 *Die malignen und benignen Degenerationen der Uterus-Myome. G. Winter.
82 Fruchtwasserschwund in der 2ten Graviditätshälfte, eine typische Form der Oligohydramnie. F. Ahlfeld.
83 Wann und wie soll die 3te Geburts-Periode beendet werden (how to end third stage of labor). F. Ahlfeld.
84 Kenntnis des menschlichen Uterus bei den Hippokratikern. Kritisch-historische Bemerkungen. H. Natvig.
85 Ueber die Pubiotomie. Henkel.

81. **Myoma and Cancer of the Uterus.**—Winter discusses the question of malignant and innocent degeneration of uterine myomas. The testimony to date indicates that a simple myoma can be regarded as an essentially benign growth. He found a carcinoma in the corpus in 12 cases. It had been previously diagnosed in only 4. If symptoms occur in the course of a myoma, such as are seldom observed with myoma but are frequent with cancer (cohabitation bleedings, hemorrhage in the menopause, a blood-stained discharge, pains independent of menstruation), a careful search must be made for evidences of carcinoma in corpus or cervix. He has been able to find only 16 cases on record in which a carcinoma developed in the stump left from supravaginal amputation on account of myoma. Study of these cases shows that the malignant disease had probably been installed before the operation in a number of them, and that in others the cancer developing later had no connection with the preceding operation. There is no reason, therefore, for abandoning supravaginal amputation for total extirpation from fear of development of cancer in the stump. The myoma evidently is liable in some cases to create a predisposition to carcinoma, especially in the corpus. Its relations with sarcoma are on a different basis, as sarcomatous degeneration is not so very rare. He encountered it in 17 out of 753 cases, that is, in 3.6 per cent., and believes that it occurs in about 4 per cent. of all cases of myoma. Submucous myomas are the most liable to sarcomatous degeneration, in his experience nearly 9 per cent. (11 out of 126 submucous myomas; 10 in 237 insterstitial, and 6 in 299 subserous and subperitoneal myomas). In his 27 cases the diagnosis of sarcomatous degeneration had been made in only one instance. The entire tumor should be examined under the microscope, especially the stem of every polyp. Operative removal of the myoma on account of fear of sarcomatous degeneration is scarcely justified, he thinks, unless there are grounds for suspicion. The diagnosis is generally difficult, and is rendered positive only by anatomic investigation. This should never be neglected with submucous myoma, so that it may be followed with a prompt radical operation if necessary. Total necrosis of interstitial myoma occurred in 17 out of his total of 753 cases of myoma, presenting a syndrome including irregular, frequently severe, hemorrhages, with labor-like pains and phenomena of autointoxication. There were no characteristic objective findings until the necrosis was in its last stage and had broken through into the interior of the uterus. Total necrosis must be regarded as a very serious and rather dangerous complication of myoma. Prolonged irregular bleeding from the uterus, especially when accompanied by pains suggesting labor, should always arouse suspicion. The finding of acetone may be a valuable differentiating sign, but it was lacking in 2 of his cases. Most important of all is a history of a just preceding childbirth or abortion. The radical operation was performed in his 17 cases by supravaginal amputation in all but one, and recovery was uneventful. Poorly nourished myomas, the subserous, the intraligamentary and those with a thin pedicle, are most liable to become affected with cystic degeneration, and the age of the patient and consequently of the growth enhances this tendency. Congestion in the venous system is liable to entail edema of a myoma. Primary softening of an interstitial myoma is accompanied by considerable bleeding, as a rule, but otherwise causes no local or general symptoms. Treatment of myoma, on the whole, must be guided by the symptoms.